SYLLABUS

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Sedona

2026 Spring Scientific Symposium

June 11-14, 2026 | Hilton Sedona at Bell Rock, Sedona, Arizona

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The purpose of the American Society of Ophthalmic Plastic and Reconstructive Surgery's Continuing Medical Education (CME) program is to present oculofacial plastic surgeons with the highest quality learning opportunities in the areas of aesthetics, eyelid, lacrimal, and orbital diseases that promote positive change in physician performance or competence, thus enabling such physicians to maintain or improve the knowledge, skills, and professional performance needed to provide the best possible care for their patients. Ongoing assessment of the impact of the CME program is important in determining modifications to existing activities and the development of new activities. Specific expected results include increased knowledge across the ASOPRS community, a desire among practicing ophthalmologists to pursue lifelong learning, the refinement of already employed techniques or skills, and the application of new techniques or skills for the improvement of practice and patient care.

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Don O. Kikkawa	Author	1-Amgen 2-Immunovant 3-Genentech 4-Acelyrin 5-Argenx 6-Lassen Therapeutics	1-Consultant/Advisor 2-Consultant/Advisor 3-Consultant/Advisor 4-Consultant/Advisor 5-Consultant/Advisor 6-Consultant/Advisor	1-No 2-No 3-No 4-No 5-Yes 6-Yes
Bobby S. Korn	Author	Amgen, Acelyrin, Argenx, Immunovant, Viridian	Consultant/Advisor	No
Catherine Y. Liu	Author	1-Lassen Therapeutics 2-Gententech 3-Amgen	1-Researcher 2-Researcher 3-Researcher	1-No 2-No 3-No
Ronald Mancini	Author	Squid Healthcare	Executive role	No
Roman Shinder	Abstract Reviewer	Amgen	Speakers Bureau	No
Marissa K. Shoji	Author	Amgen	Researcher	No
Rachel Sobel	Abstract Reviewer	Kriya therapeutics	Consultant/Advisor	Yes
Andrea Tooley	Abstract Reviewer	Viridian	Independent Contractor	Yes
Ana Carolina Victoria	Abstract Reviewer	1-Amgen 2-Candela Medical 3-Galderma	1-Speakers Bureau 2-Independent Contractor 3-Galderma	1-No 2-No 3-No
Michael Yoon	Scientific Symposium Director (Fall)	1-Viridian 2-Amgen 3-Sling	1-Researcher 2-Researcher 3-Researcher	1-Yes 2-No 3-Yes
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Sandy Zhang-Nunes	Abstract Reviewer	1-Amgen 2-Viridian 3-Genentech 4-Allergan 5-Sciton	1-Speakers Bureau 2-Researcher 3-Consultant/Advisor 4-Consultant/Advisor 5-Consultant/Advisor	1-No 2-Yes 3-Yes 4-Yes 5-Yes

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Anne Barmettler	Moderator	Revance	Independent Contractor	No
Keith Carter	Author	Genentech	Consultant/Advisor	No
Raymond Cho	Panelist	Genentech	Researcher	No
Vikram Durairaj	Author	Stryker	Consultant/Advisor	No
Greg Griepentrog	Moderator	1-Immunovant 2-Viridian Therapeutics	1-Researcher 2-Researcher	1-No 2-No

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Bobby S. Korn	Author	1-Amgen 2-Acelyrin 3-Argenx 4-Immunovant 5-Viridian	1-Consultant/Advisor 2-Consultant/Advisor 3-Consultant/Advisor 4-Consultant/Advisor 5-Consultant/Advisor	1-No 2-No 3-No 4-No 5-No
Andrea Kossler	Moderator, Author	1-Amgen 2-Genentech 3-Viridian 4-Kriya 5-Lassen 6-Sling 7-Ethyreal Bio 8-Argenx 9-Immunovant 10-Axogen 11-Khartis Therapeutics 12-Acelyrin 13-Tourmaline Bio	1-Consultant/Advisor, Researcher 2-Consultant/Advisor 3-Consultant/Advisor, Researcher 4-Consultant/Advisor, Researcher 5-Consultant/Advisor, Researcher 6-Researcher 7-Consultant/Advisor 8-Consultant/Advisor 9-Consultant/Advisor 10-Consultant/Advisor 11-Consultant/Advisor 12-Consultant/Advisor 13-Consultant/Advisor	1-No 2-No 3-No 4-No 5-No 6-Yes 7-No 8-Yes 9-No 10-No 11-No 12-Yes 13-Yes
Steven Leibowitz	Author	1-Amgen 2-Viridian 3-Lassen 4-Argenx 5-Tormaline 6-Kriya	1-Speakers Bureau 2-Researcher 3-Researcher 4-Researcher 5-Researcher 6-Consultant/Advisor	1-No 2-No 3-No 4-No 5-No 6-No

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NOT RELEVANT				
Name	**Role**	**Company**	**Relationship Type**	**Ended?**
Catherine Y. Liu	Panelist, Author	1-Lassen Therapeutics 2-Gententech 3-Amgen	1-Researcher 2-Researcher 3-Researcher	1-No 2-No 3-No
Mark Lucarelli	Moderator	1-Amgen 2-Viridian	1-Consultant/Advisor 2-Consultant/Advisor	1-Yes 2-Yes
Amina Malik	Moderator	1-Amgen 2-Tourmaline Bio	1-Consultant/Advisor 2-Researcher	1-No 2-No
Michael McCracken	Panelist	NexTech	Speakers Bureau	No
Cameron Nabavi	Panelist	Tourmaline Bio	Consultant/Advisor	Yes
Tanuj Nakra	Author	AVYA Skincare	Ownership Interests	No
John Ng	Panelist	1-Bio-Logic Aqua Research, Inc. 2-Amgen 3-Immunovant	1-Stocks 2-Researcher 3-Researcher	1-No 2-No 3-No
John Nguyen	Author	1-Amgen 2-Viridian 3-Immunovant	1-Researcher 2-Researcher 3-Researcher	1-No 2-No 3-No
Chau Pham	Author	1-Edwards Lide Sciences 2-Regeneron	1-Stocks 2-Stocks	1-No 2-No
Fatemeh Rajaii	Author	1-Acelyrin 2-Amgen 3-Hoffman La Roche, Ltd. 4-Immunovant 5-Khartis	1-Consultant/Advisor 2-Consultant/Advisor 3-Consultant/Advisor 4-Researcher 5-Consultant/Advisor	1-Yes 2-Yes 3-No 4-Yes 5-No
Daniel Rootman	Author	1-Argenx 2-Amgen	1-Speakers Bureau 2-Speakers Bureau	1-No 2-No
Erin Shriver	Author	1-Amgen 2-Genentech 3-Immunovant	1-Consultant/Advisor 2-Consultant/Advisor 3-Researcher	1-No 2-No 3-Yes

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Name	**Role**	**Company**	**Relationship Type**	**Ended?**
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Christine Sindt	Author	Oculus	Employee	No
Dane Slentz	Panelist	Amgen	Speakers Bureau	No
Phillip B. Storm	Author	1-Medtronic 2-LatusBio	1-Consultant/Advisor 2-Consultant/Advisor	1-No 2-No
Suzanne van Landingham	Panelist	Immunovant	Researcher	Yes
Lilly Wagner	Author	Genentech Inc.	Consultant/Advisor	Yes
Sandy Zhang-Nunes	Author	1-Tarsus Pharmaceuticals 2-Amgen	1-Consultant/Advisor 2-Consultant/Advisor	1-Yes 2-Yes

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1:01–1:04 pm

Une Phlegmasie Sévère: An Unusual Case of Ligneous Conjunctivitis Involving the Lacrimal Sac and Nasolacrimal Duct

Roger K. Henry[1], Roger E. Turbin[1], David Suster[2], Esther Nimchinsky[3], Jean-Anderson Eloy[4], Paul D. Langer[1]
[1]Institute of Ophthalmology & Visual Science, Rutgers University - New Jersey Medical School, Newark, New Jersey, United States, [2]Department of Pathology, Rutgers University - New Jersey Medical School, Newark, New Jersey, United States, [3]Department of Radiology, Rutgers University - New Jersey Medical School, Newark, New Jersey, United States, [4]Department of Otolaryngology, Rutgers University - New Jersey Medical School, Newark, New Jersey, United States

Introduction: Ligneous conjunctivitis is classified as an ultra-rare disease, with an estimated incidence of 1.6 cases per 1 million. Caused by a plasminogen mutation leading to exuberant granulation tissue, the pathognomonic woody pseudomembranes and severe inflammation (“*phlegmasia sèvere*”) of the cervix, larynx, trachea, conjunctiva, and gingiva were originally described by French physician M. Bouisson in 1847. We herein describe a case of ligneous conjunctivitis involving the lacrimal sac and nasolacrimal duct; to our knowledge, no previous case of ligneous dacryocystitis has been reported.

Methods: A retrospective single-institution chart review was conducted. Per the Rutgers University Institutional Review Board (IRB) policies, IRB review was exempted for a single case report.

Results: A 66-year-old woman, with a past medical history of plasminogen deficiency and ligneous conjunctivitis, with related cervical, gingival, and recurrent left conjunctival lesions, presented with a 10-year history of persistent left epiphora. She had undergone left dacryocystorhinostomy elsewhere 10 years prior which was unsuccessful in resolving her tearing.

On presentation, her examination was significant for a subcutaneous rubbery left medial canthal nodule palpable in the region of the lacrimal sac fossa which was indurated, immobile, and measured about 1 cm in largest dimension (Figure 1). Intranasal extension of the lesion was visible with direct rhinoscopy (Figure 1). Computed tomography revealed a large, dumbbell-shaped growth extending from the lacrimal sac into the bony nasolacrimal duct, which had expanded in size significantly over the prior 10 years on imaging (Figure 2).

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Repeat left external DCR was performed with external resection of the lacrimal sac portion of the lesion and endoscopic resection of the intranasal portion (Figures 3,4). Grossly, the lesions were flesh-colored, fibrous, and exhibited minimal bleeding (Figures 3,4).

Pathologic analysis of the specimens revealed exuberant hyaline fibrin deposition and cholesterol clefts, granulation tissue with fibrinopurulent ulceration, histiocytes and lymphoplasmocytic infiltration indicative of acute and chronic inflammation. Rare foreign body giant cells were also seen (Figure 5). Given the pathologic findings, documented plasminogen deficiency, and other systemic lesions (gingival, cervical, conjunctival), a diagnosis of ligneous dacryocystitis was made. The patient was continued on allogenic serum eyedrops and eventually administered regular human-derived plasminogen infusions without recurrence of the lacrimal or conjunctival lesions at 2-year follow-up and without recurrence of her epiphora.

Conclusions: We present a unique case of ligneous conjunctivitis involving the lacrimal sac and nasolacrimal duct resulting in dacryostenosis and chronic epiphora, the first such case reported to our knowledge. Though ligneous conjunctivitis is quite rare, oculoplastic surgeons should be aware that it can involve the lacrimal drainage apparatus and may require surgical intervention and life-long medical therapy; a newer treatment with human-derived plasminogen replacement therapy provides an additional option in the treatment armamentarium.

Figure 1

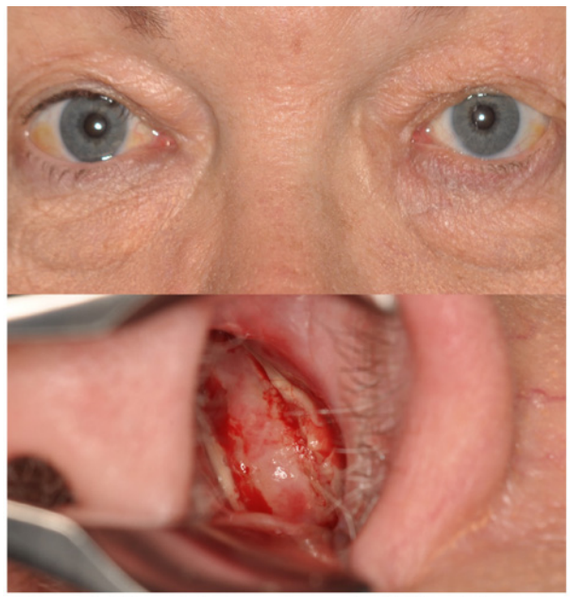

Figure 1. External photograph reveals slight protuberance of the left medial canthus due to a lacrimal sac mass that extends into the nose, visible with anterior rhinoscopy.

Figure 2

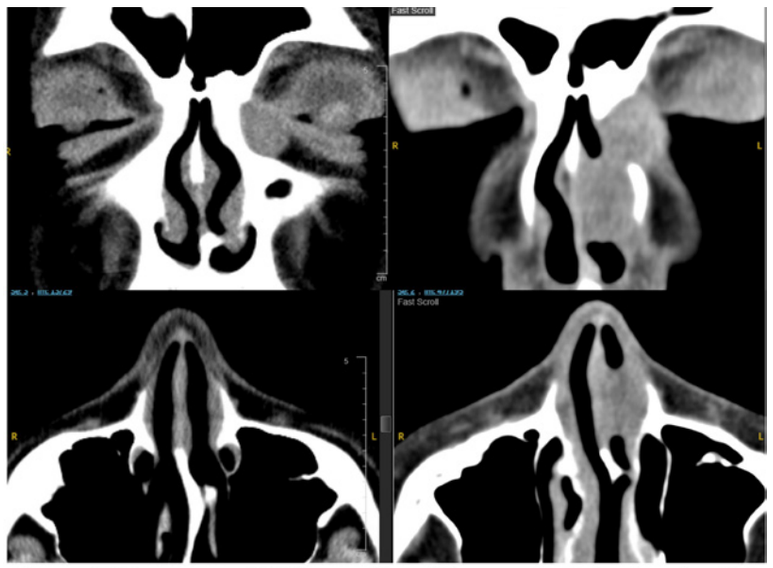

Figure 2. Comparison of CT images from 10-years prior (left column) and at presentation (right column) demonstrates an expanding lacrimal sac mass with bony erosive changes.

Figure 3

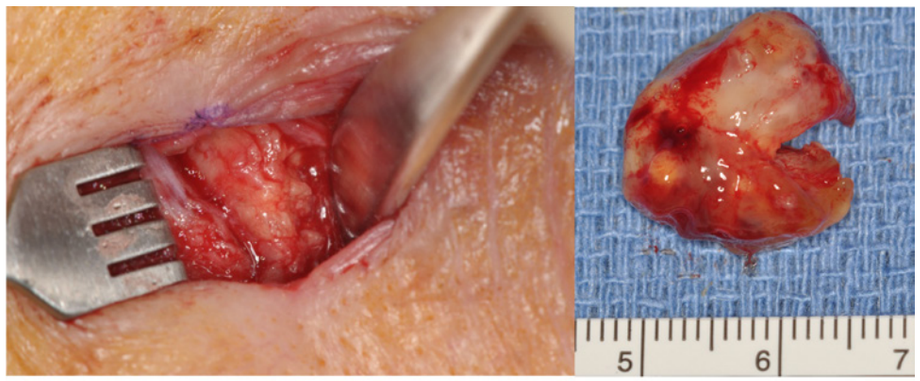

Figure 3. Intraoperative photographs of the mass visible within the left lacrimal sac through the DCR incision and of the gross specimen of the lacrimal sac portion of the lesion.

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Figure 4

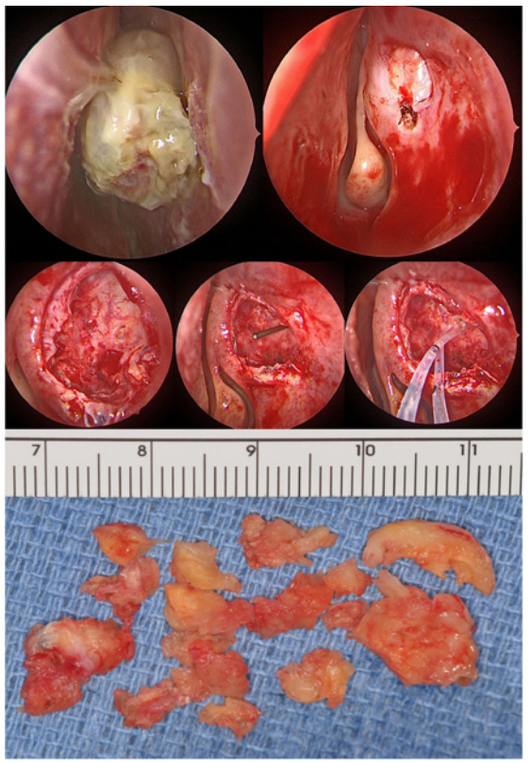

Figure 4. Intraoperative serial photographs (left) of the intranasal portion of the lesion during endoscopic resection, probing, and intubation; (right) resected pieces of the intranasal portion of the lesion.

Figure 5

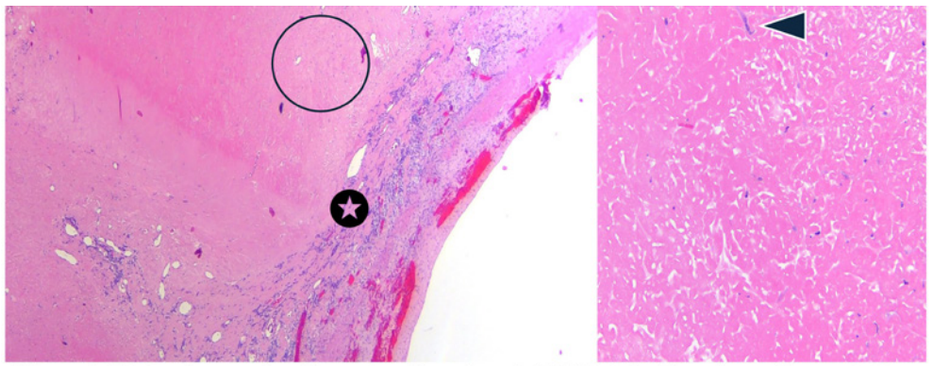

Figure 5. Photomicrographs of hematoxylin and eosin (H&E) stained specimen demonstrate eosinophilic hyaline material, cholesterol clefts, granulation tissue with fibrinopurulent ulceration (circled area), lymphoplasmocytic infiltration indicative of acute and chronic inflammation (star) and rare foreign body giant cells (arrowhead); Left panel – 20x magnification, Right panel – 40x magnification

References

1. Bouisson M: Ophthalmie sur-aigue avec formation de pseudomembranes a la surface de la conjonctive. *Ann Oculist* 17:100–4, 1847
2. De Cock R, Ficker LA, Dart JG, et al: Topical heparin in the treatment of ligneous conjunctivitis. *Ophthalmology*. 102:1654–9, 1995
3. Schuster, V., & Seregard, S. (2003). Ligneous conjunctivitis. *Survey of Ophthalmology*, *48*(4), 369–388. https://doi.org/10.1016/s0039-6257(03)00056-0

1:04–1:07 pm

Biopsy-Induced Inflammatory Seroma Masquerading as a Cerebrospinal Fluid Leak in a Child with Orbital Langerhans Cell Histiocystosis

Yasaman Ataei[1,2], Phillip B. Storm[3], William Katowitz[2], Karen Revere[2]
[1]Ophthalmology, University of Pennsylvania, Philadelphia, Pennsylvania, United States, [2]Ophthalmology, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, United States, [3]Neurosurgery, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, United States

Introduction: CSF leak is a known complication of orbital roof biopsy, especially in the setting of a lytic lesion[1]. We present a child with orbital roof Langerhans Cell Histiocytosis (LCH) who developed a wound leak following biopsy.

Methods: Retrospective case report.

Results: An 8-year-old previously healthy boy presented with a 3-week history of left-sided headache and progressive left eyebrow fullness that was tender to touch. A CT revealed an enhancing soft-tissue mass overlying the left subgaleal region with associated bony destruction along the left anterior orbital roof, abutting the floor of the anterior cranial fossa (Figure 1).His vision was 20/20 in both eyes without afferent pupillary defect, and he had full extraocular motility. There was a palpable left-sided eyebrow mass and mild ptosis (Figure 2). Exophthalmometry measurements were symmetric and fundoscopic examination was normal. MRI confirmed an enhancing mass involving the left frontal bone with calvarial erosion and intracranial extension most consistent LCH (Figure 3). No sub-dural extension of the tumor was noted, and the risk of CSF leak with biopsy from an orbital approach was discussed with neurosurgery and thought to be low. An uncomplicated anterior orbitotomy through a lid crease incision was performed. Following intraoperative pathological confirmation of LCH, the surgical bed was irrigated with dexamethasone. Ten days postoperatively, the lid become edematous with a moderate amount of clear fluid intermittently leaking from the wound (Figure 4). There was no fever or clinical evidence of wound infection. Despite an absence of headache, there was concern for possible CSF leak. An urgent CT was obtained that revealed a preseptal fluid collection, but no subdural air, which would have been expected in the setting of a CSF leak in this context. As a result, the findings were thought to likely represent an inflammatory seroma rather than a CSF leak. He was successfully treated with a 5-day course of dexamethasone, and there was resolution of wound drainage by day 2 of treatment.

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Conclusions: Our patient had orbital biopsy-confirmed LCH with a postoperative inflammatory seroma mimicking a CSF leak. To our knowledge, this complication following orbital LCH biopsy has not previously been described. The case is valuable in expanding the differential diagnosis of post-operative wound drainage after orbital roof lesion biopsy, specifically alerting us to the possibility of inflammatory seroma after LCH biopsy.

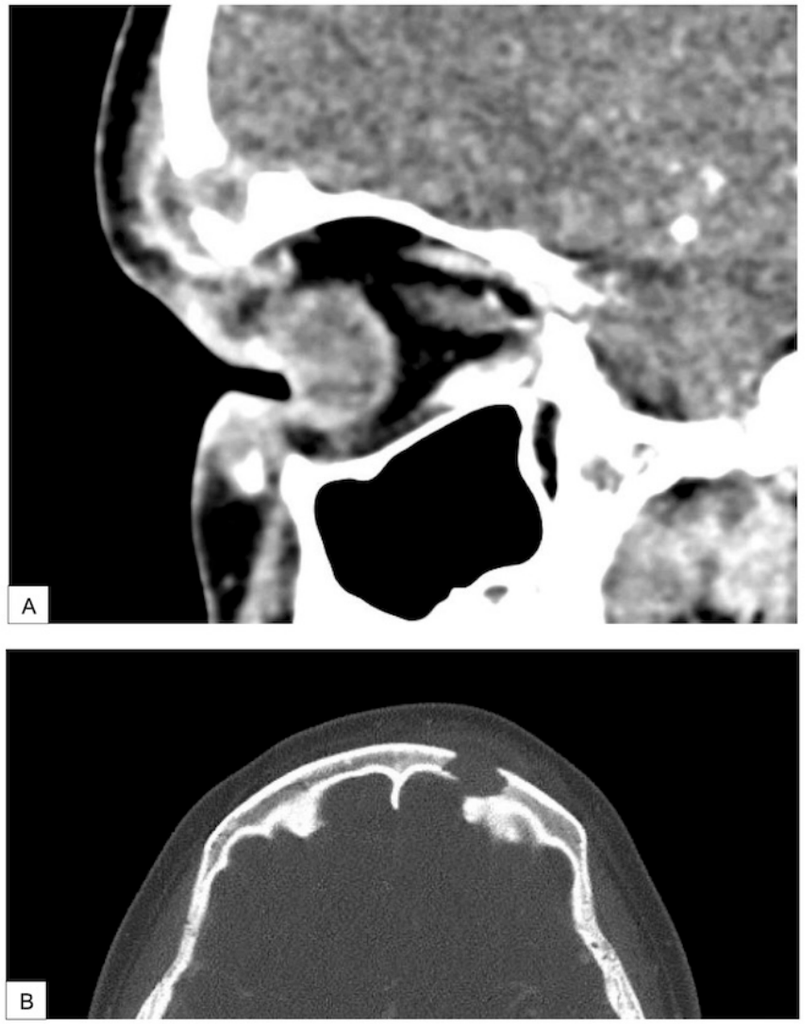

Figure 1: Sagittal soft tissue window (A) and Axial bone window (B) CT sinus with contrast.
A. Demonstrates a mass along the left orbital roof that extends into the extraconal space and abuts the floor of the left anterior cranial fossa.
B. Demonstrates bony destruction traversing the outer and inner tables of the left anterior calvarium.

Figure 2: Pre-operative facial image notable for left-sided eyebrow mass and mild ptosis

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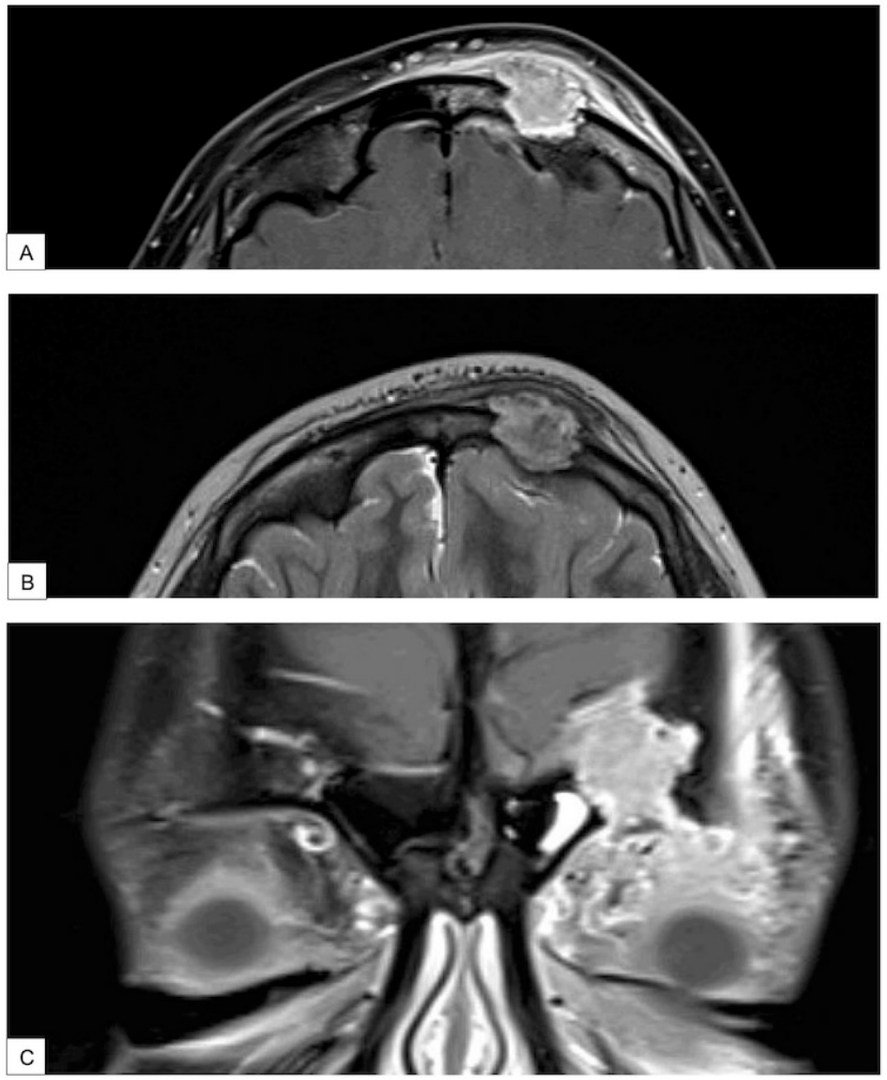

Figure 3: MRI Brain, Orbits & Pituitary with contrast
Axial T1 (A) and T2 (B) sequences showing an enhancing lesion centered in the left frontal bone, with sharply demarcated margins and complete erosion through the inner and outer tables of the calvarium. Coronal T1 (C) sequence showing the lesion extending through the orbital roof into the left orbit.

Figure 4: Post-operative facial image

References

1. Vezina JP, Audet N, Fradet G. Cerebrospinal fluid otorrhoea: a rare presentation of Langerhans' cell histiocytosis of the temporal bone. *J Laryngol Otol*. 2010;124(5):545-548. doi:10.1017/S0022215109992295

1:07–1:10 pm

Quantitative Outcomes of Lower Eyelid Retraction Repair with Porcine Acellular Dermal Matrix Graft

Marissa K. Shoji[1,2], Gillian A. Folk[1], Catherine Y. Liu[1], Bobby S. Korn[1], Don O. Kikkawa[1]
[1]Shiley Eye Institute/UC San Diego, San Diego, California, United States, [2]Division of Oculofacial Plastic and Orbital Surgery, Bascom Palmer Eye Institute, Miami, Florida, United States

Introduction: Lower eyelid retraction may result from various etiologies including thyroid eye disease (TED), trauma, or after surgery, including cosmetic lower eyelid surgery. It may lead to symptoms such as ocular irritation, tearing, and potentially vision loss if severe. Symptomatic cases may require surgical correction with grafts. Porcine-derived acellular dermal matrix offers advantages over autologous grafts including no need for tissue harvesting and thus no donor site morbidity. However, previous literature assessing porcine-derived acellular dermal matrix for lower lid retraction has primarily consisted of small series and has been equivocal regarding outcomes. Thus, this study aims to evaluate quantitative outcomes of lower eyelid retraction repair using a porcine acellular dermal matrix scaffold.

Methods: A retrospective chart review was conducted assessing patients who underwent lower eyelid retraction repair with porcine acellular dermal matrix scaffold at a single academic institution. The technique involved a transconjunctival approach with fixation of the graft to the tarsus while preserving a conjunctival cuff to epithelialize the graft on the upper edge. The primary outcome was postoperative change in lower eyelid position as measured through margin reflex distance 2 (MRD2), inferior scleral show (ISS), and lagophthalmos. Outcomes were analyzed for the overall cohort and stratified by prior history of lower eyelid retraction repair and by underlying etiology.

Results: Eighty-seven eyelids from 63 patients were included (mean age 65.71±8.5 years, 64.4% female). The most common etiologies were prior cosmetic lower eyelid surgery (48.2%) and thyroid eye disease (20.0%). At a mean postoperative follow-up of 13.3 months, significant improvements were observed in the overall cohort, including a mean change in MRD2 of -1.33±1.97 mm, mean change in ISS of -1.67 mm±1.64, and mean change in lagophthalmos -0.97±1.53 mm ($p<0.001$ for all). Only one complication in one eyelid occurred (implant extrusion requiring additional surgery). No postoperative corneal complications were noted.

When stratified by prior retraction repair, there was no significant difference in baseline measurements between groups (Table 1, Figure 1). Both groups demonstrated significant improvement in MRD2 and ISS and trend to significant improvement in lagophthalmos. There was a trend towards significantly greater change in MRD2, ISS, and lagophthalmos in the group that had not undergone prior retraction repair but this was only significant for ISS ($p=0.05$).

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Across all etiologic subgroups, there was no significant different in baseline lower eyelid position measurements among groups (Table 2). Mean postoperative MRD2, lagophthalmos, and ISS all were reduced compared to preoperative values. There was no significant difference when comparing among etiologies ($p>0.05$ for all).

Conclusions: Porcine acellular dermal matrix scaffolding may be an effective option for lower eyelid retraction repair for both primary surgery and in patients undergoing revision surgery as well as across various causes including after prior cosmetic oculofacial surgery and TED. To our knowledge, this is the largest study to quantitatively assess lower eyelid metrics after lower eyelid retraction repair with porcine acellular dermal matrix scaffolding, including comparisons by etiology and prior surgical history.

Table 1. Comparison of Lower Eyelid Quantitative Measurements Overall and Stratified by Prior Surgical Status

	Overall (n=87)	Prior Retraction Repair (n=24)	No Prior Retraction Repair (n=63)	p-value**
Age (years)	65.7±18.5	67.6±14.3	65.0±20.0	0.56
Preoperative MRD2 (mm)	7.16±1.82	6.67±1.31	7.34±1.95	0.12
Postoperative MRD2 (mm)	5.83±1.36	5.85±1.36	5.82±1.37	0.91
Change in MRD2 (mm)	-1.33±1.97	-0.81±1.63	-1.52±2.07	0.13
p-value*	*<0.001*	*0.02*	*<0.001*	-
Preoperative Lagophthalmos (mm)	1.28±1.93	1.38±2.58	1.25±1.63	0.78
Postoperative Lagophthalmos (mm)	0.30±0.76	0.70±1.20	0.15±0.43	*0.003*
Change in Lagophthalmos (mm)	-0.97±1.53	-0.66±1.73	-1.09±1.44	0.24
p-value*	*<0.001*	0.08	*<0.001*	-
Preoperative Inferior Scleral Show (mm)	2.02±1.40	1.62±1.29	2.18±1.42	0.10
Postoperative Inferior Scleral Show (mm)	0.35±1.19	0.52±1.01	0.29±1.25	0.42
Change in Inferior Scleral Show (mm)	-1.67±1.64	-1.1±1.86	-1.89±1.50	*0.05*
p-value*	*<0.001*	*0.008*	*<0.001*	-
Complications (% yes)	1.10%	4.17%	0.00%	-
Duration of follow-up (months)	13.3±14.2	21.1±16.7	13.3±12.2	*0.02*

*: comparison of pre and postoperative
**: comparison of measurements between etiology groups
Significant p-values are italicized

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Table 2. Comparison of Lower Eyelid Quantitative Measurements Among Retraction Etiologies

	Overall (n=87)	Following Cosmetic Oculofacial Surgery (n= 41)	Thyroid Eye Disease (n= 17)	Following Orbital Floor Fracture Repair (n=11)	Age-Related (n=10)	p-value**
Age (years)	65.7±18.5	70.4±15.9	66.0±13.4	52.5±24.6	65.7±22.7	*0.04*
Preoperative MRD2 (mm)	7.16±1.82	7.26±1.71	6.88±1.83	7.45±1.50	7.00±2.94	0.85
Postoperative MRD2 (mm)	5.83±1.36	5.45±1.20	6.15±1.50	6.00±1.41	5.70±1.57	0.29
Change in MRD2 (mm)	-1.33±1.97	-1.80±1.74	-0.74±2.02	-1.45±1.97	-1.30±2.79	0.32
p-value*	*<0.001*	*<0.001*	0.15	*0.03*	0.17	-
Preoperative Lagophthalmos (mm)	1.28±1.93	1.19±1.22	0.88±1.04	1.18±2.99	1.30±1.44	0.90
Postoperative Lagophthalmos (mm)	0.30±0.76	0.18±0.48	0.3±0.41	0.23±0.61	0.20±0.48	0.89
Change in Lagophthalmos (mm)	-0.97±1.53	-1.00±1.20	-0.50±0.93	-0.95±2.39	-1.10±1.47	0.66
p-value*	*<0.001*	*<0.001*	*0.05*	*0.21*	*<0.001*	-
Preoperative Inferior Scleral Show (mm)	2.02±1.40	2.14±1.56	2.06±1.32	2.14±1.86	1.80±0.63	0.93
Postoperative Inferior Scleral Show (mm)	0.35±1.19	0.49±1.41	0.21±0.95	0.41±0.66	-0.35±0.75	0.24
Change in Inferior Scleral Show (mm)	-1.67±1.64	-1.65±1.77	-1.85±1.60	-1.73±1.82	-2.15±1.00	0.85
p-value*	*<0.001*	*<0.001*	*<0.001*	0.01	*0.04*	-
Complications (% yes)	1.10%	0.00%	5.88%	0.00%	0.00%	-
Duration of follow-up (months)	13.3±14.2	13.4±12.5	23.3±18.1	15.7±11.9	8.51±6.50	*0.03*

*: comparison of pre and postoperative
**: comparison of measurements between etiology groups
Significant p-values are italicized

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3. Grumbine et al. *PRS*, 2019.

1:10–1:13 pm

Comparison of GPT-4o and Oculoplastic Surgeons in Orbital Fracture Surgical Decision-Making

David Kelly[1], Kayla Ikemiya[1], Radha Pandya[2], Jonathan Lu[1], Bryan Winn[1,3], Roxana Fu[4], Nickisa Hodgson[1]
[1]Department of Ophthalmology, University of California, San Francisco, San Francisco, California, United States, [2]Eye Institute, Northwell Health, Great Neck, New York, United States, [3]Ophthalmology Service, San Francisco Veterans Affairs Medical Center, San Francisco, California, United States, [4]Department of Ophthalmology, New York University Langone Health, New York, New York, United States

Introduction: Management of orbital fractures requires complex decision-making, including surgical necessity, timing, approach, and implant.[1] Although indications for surgical intervention remain debated and management preferences vary amongoculofacial and facial plastic surgeons, most agree that persistent diplopia, significant enophthalmos, and fractures involving > 50% of the orbital floor warrant surgery.[2-8]

Large language models (LLMs) have been increasingly proposed as tools for clinical decision support. OpenAI's ChatGPT has demonstrated advanced medical knowledge, performing at or near the passing threshold of all three components of the United States Medical Licensing Exam and demonstrating 53% accuracy on ophthalmology board-style questions after training.[9-12] When asked about the assessment and treatment of orbital and oculofacial diseases, the model responded accurately and consistently, scoring a mean of 5.34 out of 6 when evaluated by oculofacial specialists.[13]

While emerging studies have shown that LLMs can be trained to detect orbital fractures, there is little evidence addressing their ability to guide subspecialist-level management decisions.[14-17] Given the complexity of orbital fracture treatment, this study evaluates the concordance between GPT-4 Omni (GPT-4o)'s recommendations with those of oculoplastic surgeons, specifically its decisions regarding surgical management, operative approach, and implant selection.

Methods: This is a retrospective, single-center, non-interventional study of all patients seen at the University of California San Francisco Oculofacial Plastic and Orbital Surgery department from January 1, 2019, to December 31, 2023, for initial outpatient evaluation of an orbital fracture. Inclusion criteria were patients age ≥ 18 years with an untreated orbital fracture sustained within one year prior to evaluation and a CT report available. De-identified patient case presentations, incorporating CT and exam findings, were input into the LLM using a standardized, pre-defined prompt. The model was blinded to actual management. GPT-4o's recommendations regarding surgical necessity, surgical approach, and implant type were compared to the treatment plans performed by oculoplastic surgeons documented in the medical record. Fisher's exact and chi-squared tests assessed associations between categorical variables and management decisions, while Cohen's kappa evaluated inter-rater reliability.

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Results: Of the 82 cases that met criteria, GPT-4o recommended surgery for 63.4% of patients, whereas oculoplastic surgeons operated on 22.0% (k = 0.28, p < 0.0001). Management concordance occurred in 58.5% of cases (n = 48), with 46.9% concordance in nonsurgical cases (n = 30). Among the 18 surgery cases with concordance, agreement for both surgical approach (k = 0.33, p = 0.09) and implant type (k = 0.09, p = 0.40) was poor, suggesting little alignment with subspecialist planning despite agreement on intervention. GPT-4o was significantly more likely to recommend surgery in the presence of enophthalmos, extraocular movement restriction, diplopia, V2 hypesthesia, or CT report findings suggesting entrapment (all p ≤ 0.02), indicating that these features may disproportionately influence the model's recommendations.

Conclusions: GPT-4o demonstrates a substantially lower threshold for recommending surgical repair of orbital fractures compared with oculoplastic surgeons and little concordance in operative planning. Certain clinical findings may have an outsized influence on its treatment recommendations. Further training or refinement is necessary before such models can be safely integrated into orbital trauma decision-making.

Table 1: Demographics

Patients (n)	82
Mean Age (range)	48 (18-92)
Female (n)	31 (37.8%)
Male (n)	51 (62.2%)
OD (n)	37 (45.1%)
OS (n)	45 (54.9%)
Mean Time to Clinic Evaluation (days)	55.8 days (86.8)
White (n)	35 (42.7%)
Not Hispanic or Latino (n)	63 (76.8%)
Type of Fracture	
Medial (n)	16 (19.5%)
Inferior (n)	33 (40.2%)
Combination (n)	26 (31.7%)
Clinical Variables	
Enophthalmos (≥ 2mm)	24 (29.2%)
EOM Restriction (n)	26 (31.7%)
Periorbital Edema (n)	16 (19.5%)
Periorbital Ecchymosis (n)	24 (29.2%)
APD (n)	2 (2.4%)
BCVA (logMAR)	0.151 (0.289)
Pain (n)	16 (19.5%)
Diplopia (n)	22 (26.8%)
Entrapment (n)	3 (3.7%)
V2 Hypesthesia (n)	14 (17.1%)
Hypoglobus (n)	6 (7.3%)

Table 2: Management

	Surgeon	GPT-4o
Surgery	18 (22.0%)	52 (63.4%)
Non-Surgical	64 (78.0%)	30 (36.6%)
Implant		
Porous polyethylene/ Titanium (n)	7 (38.9%)	44 (84.6%)
Porous polyethylene (n)	7 (38.9%)	4 (7.7%)
Titanium (n)	0 (0%)	2 (3.8%)
Nylon (n)	4 (4.8%)	0 (0%)
Resorbable (n)	0 (0%)	0 (0%)
Multiple (n)	-	2 (3.8%)
Surgical Approach		
Transconjunctival (n)	13 (72.2%)	27 (51.9%)
Transcaruncular (n)	1 (5.6%)	5 (9.6%)
Combination (conjunctival/ caruncular) (n)	4 (22.2%)	13 (25.0%)

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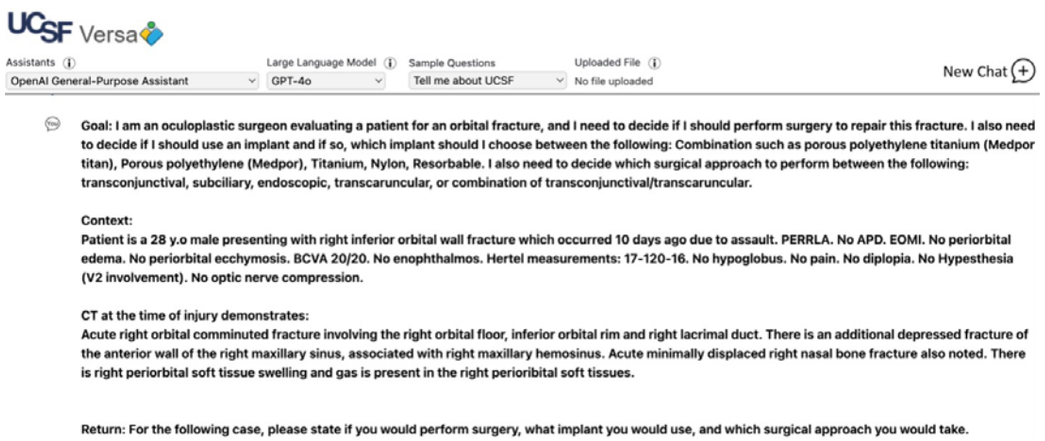

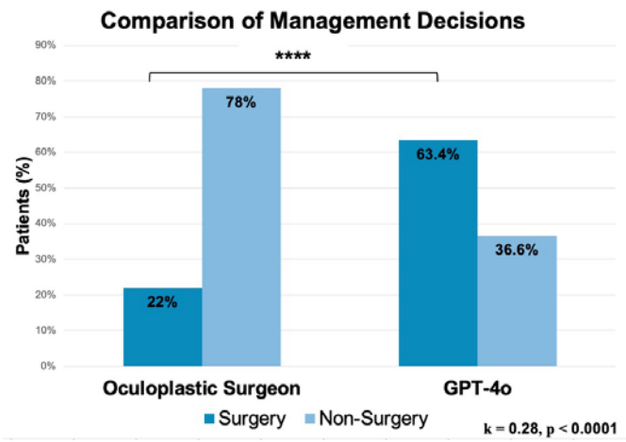

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1:13–1:16 pm

A Three-Year Review of Microbial Cultures at a Southeastern Tertiary Care Ophthalmic Plastic Surgery Center

John Thompson, Rebika Khanal, Jocelyn Lee, Zhenyang Zhao, Adam de la Garza, Ted Wojno
Emory University Department of Ophthalmology, Atlanta, Georgia, United States

Introduction: Ophthalmic infections are caused by a wide range of pathogens that are constantly shifting. In pre-septal and orbital cellulitis, bacterial vaccines have reduced the number of cases caused by *Streptococcus pneumoniae* and *Haemophilus influenzae*,[1] while in subperiosteal abscesses, there have been increases in *Streptococcus anginosus* group (SAG) isolation.[2] Additionally, hypervirulent *Klebsiella pneumoniae*, a well-described etiology of liver abscess and endogenous endophthalmitis in Asia, is emerging as a cause of severe endogenous endophthalmitis and rarely necrotizing fasciitis in North America.[3,4]

Antibiotic resistance is common and complicates antimicrobial therapy.[5] Knowledge of resistance trends and common pathogens for a given infection type can help guide empiric treatment. This study offers analysis of the pathogens involved in culture positive infections in a tertiary care ophthalmic plastic surgery service in the southeast United States from 2022-2025.

Methods: This is a single institution, IRB approved, retrospective chart review evaluating data of patients with a positive culture between October 2022 and December 2025 as performed by the ophthalmic plastic surgery service at Emory Hospital. Data collection included up to three isolated pathogens along with sensitivities when available. Endophthalmitis cases were only included if requiring enucleation or evisceration as these were the subset of cases the service was involved in. Coagulase-negative *Staphylococcus* species were analyzed as a single category due to similar features and pathogenicity. Members of the *Streptococcus anginosus* group were similarly combined.

Results: The study included 158 cases with positive cultures (Tables 1, 2). Of these, 57 cases were polymicrobial (36.3%). There were 51 unique pathogens identified. A total of 8 of 46 cases of *S. aureus* were methicillin resistant (17.4%). There were no cases of extended-spectrum beta-lactamase (ESBL) *Enterobacterales* identified. The three patients with *Klebsiella* endophthalmitis and the one with necrotizing fasciitis all had metastatic visceral organ disease, concerning for the hypervirulent strain.

Conclusions: This study adds microbial data for the diseases commonly treated by the ophthalmic plastic surgeon. One limitation of the study includes referral bias due to being a large academic center, which could overestimate virulence and atypical infections. Notably, *Klebsiella pneumoniae* was the most common identified pathogen in severe endophthalmitis requiring eye removal. Metastatic workups, including liver ultrasound, can be considered in these patients.

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Table 1. Most common pathogens in disease processes with greater than 10 isolated pathogens. CoNS – coagulase-negative *staphylococcus* species, SAG – *Streptococcus anginosus* group.

Disease process	Cases (#)	Polymicrobial (#, %)	Most common pathogen (#)	2nd most common pathogen (#)	3rd most common pathogen (#)	Notable pathogens (#)
Conjunctivitis	65	31, 47.7%	CoNS (28)	S. aureus (23)	Pseudomonas aeruginosa (8), Serratia marcescens (8)	
Dacryocystitis	15	6, 40.0%	S. aureus (7)	CoNS (5)	Klebsiella pneumoniae (2), Pseudomonas aeruginosa (2)	
Endophthalmitis (enucleation or evisceration)	13	2, 15.4%	Klebsiella pneumoniae (3)	CoNS (2), Pseudomonas aeruginosa (2)		
Orbital abscess	16	3, 18.7%	S. aureus (7)	SAG (4)	CoNS (2)	Dematiaceous fungus (1), Fusobacterium necrophorum (1)
Superficial abscess	26	8, 30.8%	CoNS (17)	S. aureus (9)		Actinomyces neuii (1), Candida albicans (1)

Table 2. List of pathogens in disease processes with fewer than 10 isolated pathogens. N = 1 unless otherwise stated.

Disease	Cases (#)	Polymicrobial (#, %)	Pathogens (#)
Canaliculitis	4	2 (25.0%)	Serratia marcescens, Staphylococcus capitis, Streptococcus oralis, Staphylococcus aureus, branching gram positive bacilli (unspeciated)
Dacryoadenitis	3	1 (33.3%)	Staphylococcus epidermidis (2), Haemophilus influenzae, Pantoea agglomerans, Staphylococcus lugdunensis
Implant exposure	3	1 (33.3%)	Citrobacter koseri, Staphylococcus aureus, Streptococcus agalactiae, Streptococcus constellatus
Invasive fungal Rhino-orbital sinusitis	2	(1, 50.0%)	Aspergillus spp., Streptococcus epidermidis
Necrotizing fasciitis	4	2 (50.0%)	Streptococcus pyogenes (3), Aspergillus flavus, Klebsiella pneumoniae, Staphylococcus epidermidis
Post-surgical wound	7	1 (14.3%)	Staphylococcus aureus (5), Corynebacterium spp., coagulase-negative Staphylococcus spp., Staphylococcus epidermidis

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1:16–1:19 pm

Nylon Foil Implant: A Standardized Template Implant for the Treatment of Orbital Floor Fractures

Michael Han[1], Katerina Tori[2], Ayaka Fujihashi[2], Hui Bae Lee[1]
[1]Oculofacial Plastic and Orbital Surgery, Indianapolis, Indiana, United States, [2]The Eugene and Marilyn Glick Eye Institute, Indiana University Health, Indianapolis, Indiana, United States

Introduction: There are a variety of materials available for the repair of orbital floor fractures. The implant chosen is often dictated by surgeon preference and experience in using certain materials.[1] Patient specific implants are becoming more popular; however, these implants are expensive. While nylon foil implants are cheap and widely available, they require the surgeon to cut the implant to suit the patient's fracture.[2–4] The aim of this study is to describe a nylon foil template that can be used to repair most orbital floor fractures with low incidence of enophthalmos or other complications.

Methods: This retrospective case series included all patients with orbital floor fractures that were referred to our practice between 2011 and 2024 who underwent repair with nylon implants. Demographic as well as pre- and post-operative data were collected. The same nylon foil implant was used for all cases, and the implant was cut by the same surgeon in an ovoid fashion of the same size. All patients were seen at least 3 months post-operatively and all complications were reviewed. In patients where preoperative CT scans were readily available, the fracture area was calculated.

Results: Two-hundred and seventy-five patients underwent orbital floor fracture repair, and 180 met inclusion criteria. Average age was 40.5 years (range 5-90), and 107 were males (59.4%). The median time from injury to surgical intervention was 15 days (range 1-20), and average duration of follow-up was 124 days. Thirty-two fractures (17.7%) were considered small (0-6mm), 82 (45.6%) were medium (7-13mm), and 66 (36.7%) were large (14-20mm). Three patients had postoperative enophthalmos more than 2mm (1.67%), 2 had persistent diplopia within 30 degrees of primary gaze after repair (1.11%), 2 had persistent epiphora (1.11%), and 1 developed orbital hemorrhage after surgery (0.56%). Implant removal was necessary for 2 patients due to diplopia and orbital hemorrhage respectively (1.11%). There were no instances of implant migration/extrusion, abscess, fistula, or mucocele formation.

Conclusions: This nylon foil template provides an implant that is suitable for orbital floor fractures of all sizes. A larger implant is still advisable in the setting of smaller fractures in order to minimize implant migration. Furthermore, the size of this implant template allows coverage of the entire orbital floor, thus providing support for the globe and stability for the implant with minimal complication rates.

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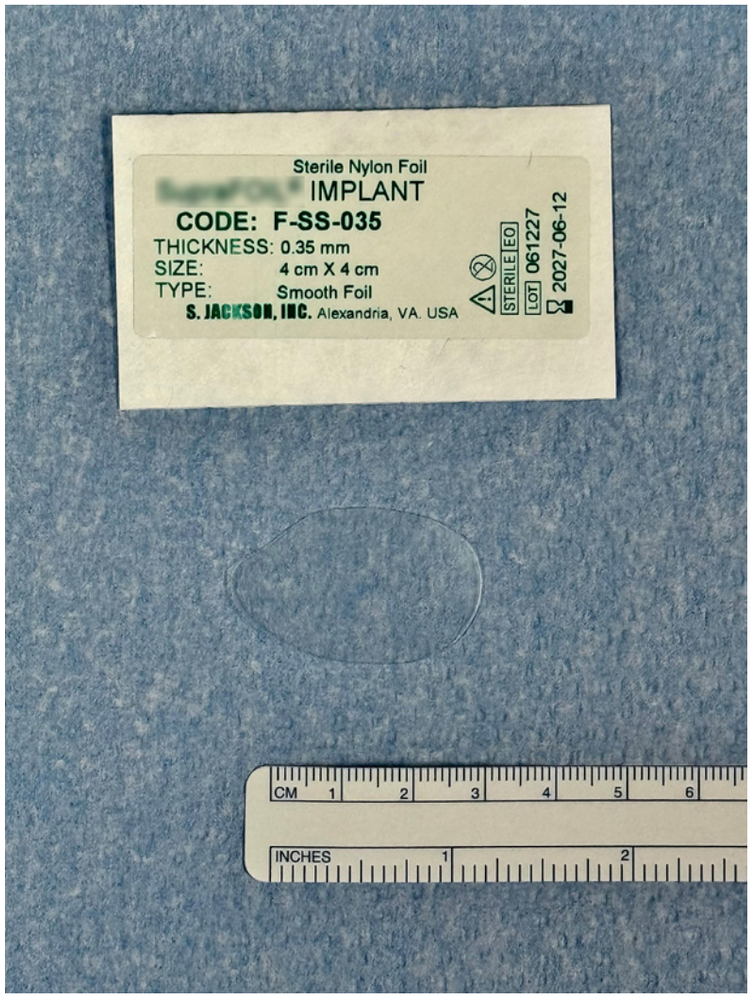
Figure 1



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1:19–1:22 pm

Flipped Tarsal Bridge Technique for Repairing Moderate-Sized Upper Eyelid Defects

Kimberly Seamon[1], Lily Huang[2], Samuel Fernandez[1], Michael Yoon[3], Timothy McCulley[1], Ying Chen[1]
[1]Ruiz Department of Ophthalmology and Visual Science, McGovern Medical School, University of Texas Health Science Center at Houston, Houston, Texas, United States, [2]Philadelphia, Pennsylvania, United States, [3]Boston, Massachusetts, United States

Introduction: Reconstruction of upper eyelid defects requires restoration of both the anterior and posterior lamellae. For moderate-sized defects involving the posterior lamella, reconstructive options are often limited by the availability of native tissue. We describe a flipped tarsal bridge technique, a novel surgical approach for restoring moderate-sized upper eyelid defects using residual superior tarsoconjunctival tissue.

Methods: This is a retrospective case series of two patients who underwent upper eyelid reconstruction following Mohs excision of malignancies involving the eyelid margin. In both cases, the central portion of the superior tarsus remained intact. After excision of the malignant tissue, the remaining superior tarsus was dissected, flipped inferiorly, and transposed into the defect to reconstruct the posterior lamella. An anterior lamellar advancement flap was then used for cutaneous repair. Postoperative outcomes were assessed clinically, including eyelid contour, functional closure, corneal protection, and complications.

Results: In both cases, the residual superior tarsus was at least 4 mm in height, permitting creation of a central tarsoconjunctival graft. The anterior lamella was carefully dissected from the tarsus using Westcott scissors. A vertical incision was made to isolate the central 50% of the superior tarsus, which was then mobilized and flipped inferiorly into the defect. The flipped tarsal bridge was secured in place to reconstruct the posterior lamella, with the tarsus providing structural support and the conjunctiva positioned to line the eyelid margin. Anterior lamellar reconstruction was performed using advancement flaps. Both patients demonstrated favorable healing at 6–8 weeks follow-up, with preserved eyelid mobility, good contour, and no signs of graft resorption, corneal abrasion, or malposition. The mucosal surface of the transposed tarsoconjunctival graft offered an ideal interface for the ocular surface.

Conclusions: The flipped tarsal bridge technique offers a tissue-conserving and technically simple method for repairing moderate-sized posterior lamellar upper eyelid defects. By using native tarsoconjunctival tissue, this approach eliminates the need for allografts or distant autologous donor sites and reduces complications associated with other reconstructive options. The technique provides durable structural support and a conjunctival surface for the cornea. It is best suited for cases in which a central segment of the superior tarsus remains intact after tumor excision. Limitations include the requirement for sufficient residual tarsus and inapplicability

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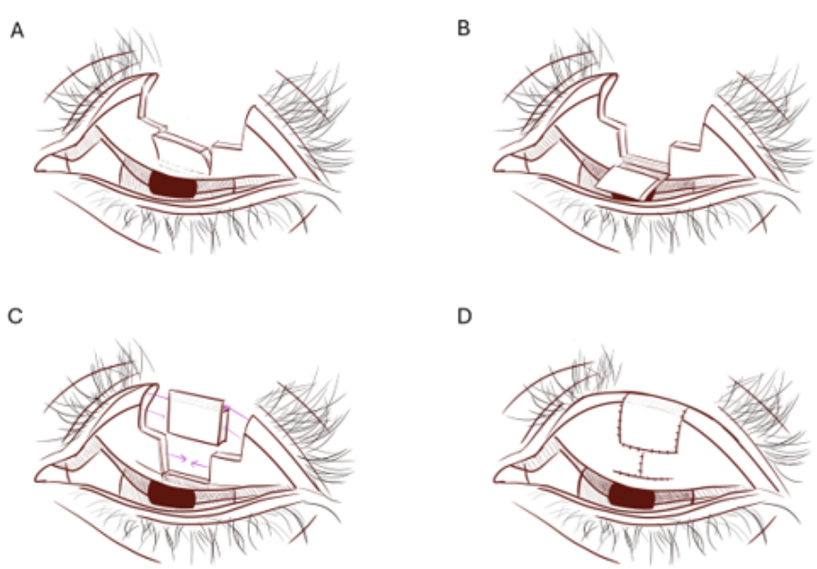
to full-thickness or extensive defects. These findings support the flipped tarsal bridge technique as a viable option for posterior lamellar reconstruction and underscore the importance of preserving native tissue when feasible.

Figure 1. Flipped tarsal bridge technique for upper eyelid reconstruction.
(A) Upper eyelid defect following Mohs excision with preservation of the central superior tarsus.
(B) Dissection of the residual superior tarsus, creating a hinged tarsal flap.
(C) Inferior flipping and transposition of the superior tarsal flap into the defect to reconstruct the posterior lamella (arrows indicate direction of movement).
(D) Final reconstruction demonstrating restored posterior lamellar continuity with subsequent anterior lamellar advancement and closure.



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1:33–1:38 pm

A Barbed Suture Surgical Device for Periosteal Fixation in Medial Canthal Reconstruction (with surgical video)

Chris Cho, Ashley Campbell, Fatemeh Rajaii, Nicholas Mahoney
Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore, Maryland, United States

Introduction: The medial canthus is a challenging area for reconstruction given its complex anatomy and narrow, concave space. When the medial canthal tendon is disrupted, a sharp medial canthal angle must be re-formed with adequate canthal depth and secure bony fixation. Various surgical techniques for medial canthopexy have been described, which include transnasal wiring, as well as fixation systems using sutures, screws, and/or plates. While successful outcomes can be achieved, these procedures can be technically difficult to perform. Here, we describe a simple and effective technique for medial canthopexy using a barbed suture surgical device for periosteal fixation in 5 cases of medial canthal reconstruction.

Methods: This is a retrospective review of a surgical technique in 5 cases of medial canthal reconstruction, including 3 cases after trauma and 2 cases after tumor resection. All cases utilized a 4-0 monofilament, absorbable barbed suture for medial canthopexy. The objective of the technique was to re-approximate the medial canthal tendon to the medial orbital wall periosteum, near the posterior lacrimal crest. In brief, the barbed suture was anchored to the subcutaneous tissue of the medial eyelid defect, fixated to the periosteum, and then externalized out the nasal skin, as a single pass, before being tied and trimmed short.

Results: Patient 1 is a 52-year-old male who presented after fall with head strike, found to have a right lower eyelid canalicular laceration with avulsion of the medial canthal tendon (Figure 1A). Patient 2 is an 89-year-old male who presented after fall with head strike, found to have a left lower eyelid canalicular laceration with avulsion of the medial canthal tendon (Figure 2A). In both cases, a mono-canalicular silicone stent was placed, and then medial canthopexy with a barbed suture was performed.

Patient 3 is a 49-year-old male who presented after a dog bite injury, found to have a right upper and lower eyelid canalicular laceration (Figure 3A). After placement of a bi-canalicular silicone stent, medial canthopexy with a barbed suture was performed.

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Patient 4 is an 84-year-old female with basal cell carcinoma of the left medial canthus status post tumor resection. Reconstruction was performed using a combination of a glabellar, Mustardé, and hatchet flaps (Figure 4A). Patient 5 is a 73-year-old female with basal cell carcinoma of the left medial canthus status post tumor resection (Figure 5A). Reconstruction was performed using a combination of hatchet flaps and skin graft. After the flaps were advanced into the defect, an adequately sharp and deep medial canthal angle was re-formed using a barbed suture.

In all cases, the eyelid position and contour were found to be excellent post-operatively, with follow-up ranging from 1 to 12 weeks after surgery (Figures 1B-5B).

Conclusions: We describe a simple and effective technique using a barbed suture surgical device for periosteal fixation in 5 cases of medial canthal reconstruction. Experience with more cases with longer post-operative follow-up will be important to confirm these findings.

Figure 1

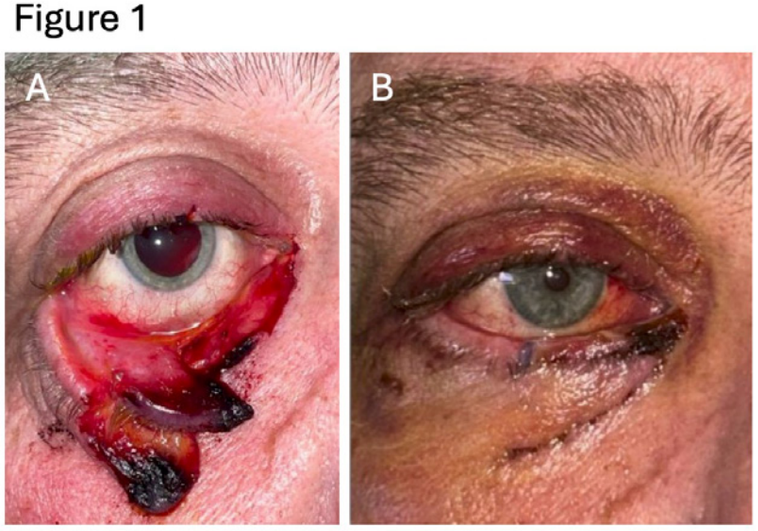

Figure 2

Figure 3

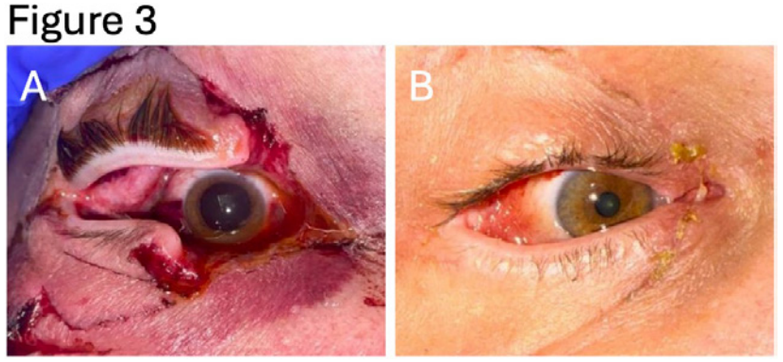

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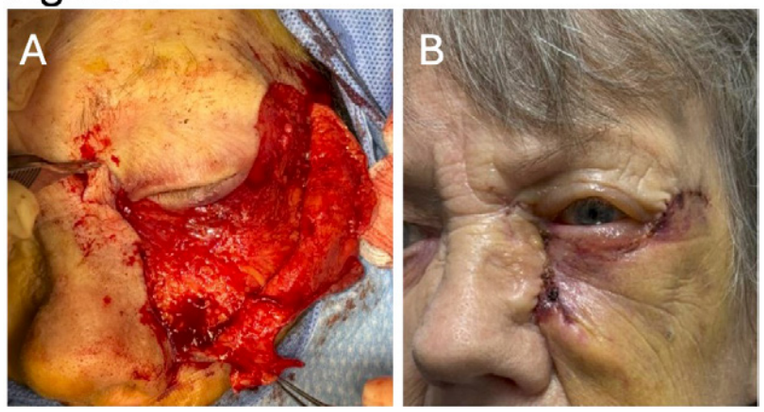
Figure 4



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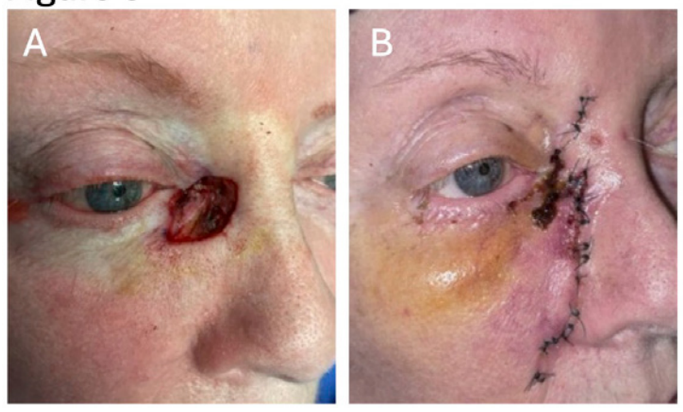

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1:40–1:45 pm

Computer-Aided Diagnosis of Eyelid Skin Tumors: New Observations

Ofira Zloto, Shirin Hamed Azzam, Ayelet Priel, Tal Koval, Eyal Klang
Tel Aviv, Israel

Introduction: To evaluate the diagnostic performance of a convolutional neural network (CNN) for classifying eyelid skin tumors as benign or malignant and to compare its performance with that of experienced oculoplastic surgeons.

Methods: A total of 333 clinical images of eyelid lesions were independently evaluated by three oculoplastic surgeons. Diagnostic accuracy, sensitivity, and specificity were calculated for each reader and compared with the performance of a previously developed CNN model. Model interpretability was assessed using Gradient-weighted Class Activation Mapping (Grad-CAM) to visualize image regions contributing to classification decisions.

Results: Reader accuracies ranged from 75.7% to 82.3%, with sensitivities between 78.0% and 94.5% and specificities between 69.8% and 83.9%. The CNN achieved a sensitivity of 93.8%, specificity of 73.7%, and overall accuracy of 79.6%, demonstrating performance comparable to experienced clinicians and exceeding some readers in either sensitivity or specificity. Grad-CAM visualization highlighted clinically relevant lesion features, supporting alignment between model focus and expert assessment.

Conclusions: The CNN demonstrated diagnostic performance comparable to that of experienced oculoplastic surgeons in distinguishing benign from malignant eyelid tumors. Computer-aided diagnostic systems may serve as a valuable adjunct for screening and triage, particularly in settings with limited oculoplastic expertise, helping reduce diagnostic delays and improve patient flow. Further validation with larger and more diverse datasets is warranted to refine performance and expand clinical applicability.

1:45–1:52 pm

SLIMS for FES: Split Lamellae Integrating M-plasty for Floppy Eyelid Syndrome (with surgical video)

Alexander Engelmann, Julian Perry, Catherine Hwang
Cole Eye Institute Department of Oculofacial Plastic Surgery, Cleveland Clinic Foundation, Cleveland, Ohio, United States

Introduction: Floppy eyelid syndrome (FES) is characterized by excessive horizontal laxity of the eyelids with papillary conjunctivitis and may be treated by surgical means in addition to nocturnal ocular surface lubrication and optimizing treatment of obstructive sleep apnea[1]. Resection of a full thickness pentagonal wedge of the eyelid laterally is a common surgical treatment of FES, which shortens the eyelid horizontal to improves eyelid tone[2]. In theory, removing a pentagonal piece of tissue should allow for efficient closure of the resultant defect (Figure 1), but patients with FES have redundant anterior lamellar tissue which creates significant excess for the surgeon to remove after reapproximating the eyelid margin. Chronic conjunctival inflammation and reduced elastin increase the risk of compromised wound healing for patients with FES; therefore post-operative wound optimization is crucial. M-plasty is a surgical technique for reducing skin redundancy due to unequal wound edge lengths without lengthening the wound[3]. The authors describe a split lamellae technique integrating M-plasty (SLIMS) for treatment of FES.

Methods: The SLIMS (split lamellae integrating M-plasty) technique was used to repair the anterior lamellar tissue in 5 upper eyelids from 4 patients undergoing surgical treatment of FES. The surgical technique (Figure 2) and outcomes were recorded. A full thickness incision was made through the upper eyelid laterally and the appropriately sized pentagonal wedge of posterior lamella was resected to achieve satisfactory horizontal tension. The posterior lamella and eyelid margin were reapproximated using the vertical mattress suture technique[4]. The redundant tissue of the anterior lamella was excised in M-plasty fashion (surgical videos), then repaired with dissolvable suture.

Results: 10 eyelids from 7 patients were treated with horizontal shortening by lateral wedge excision with M-plasty for repair of the anterior lamellar defect. Figure 3 depicts pre- and post-operative photos of patients. One patient was treated for MRSA infection of the surgical site and recovered well with a course of oral antibiotic. Otherwise, there were no post-operative complications and all patients reported significant improvement in their FES symptoms at the time of their most recent follow-up

Conclusions: When FES requires surgical treatment with horizontal shortening of the eyelid, SLIMS is an excellent strategy to optimize closure of the anterior lamella, reducing the size of the surgical wound.

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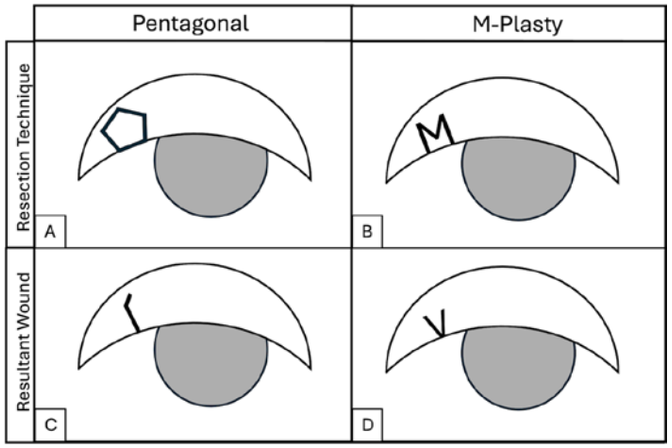
Figure 1



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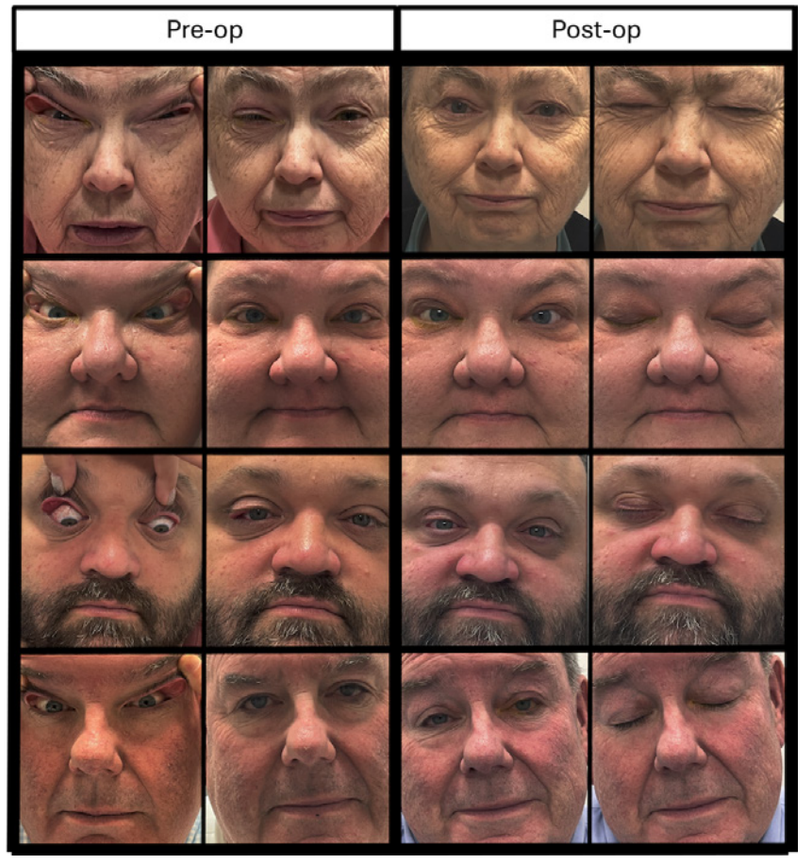

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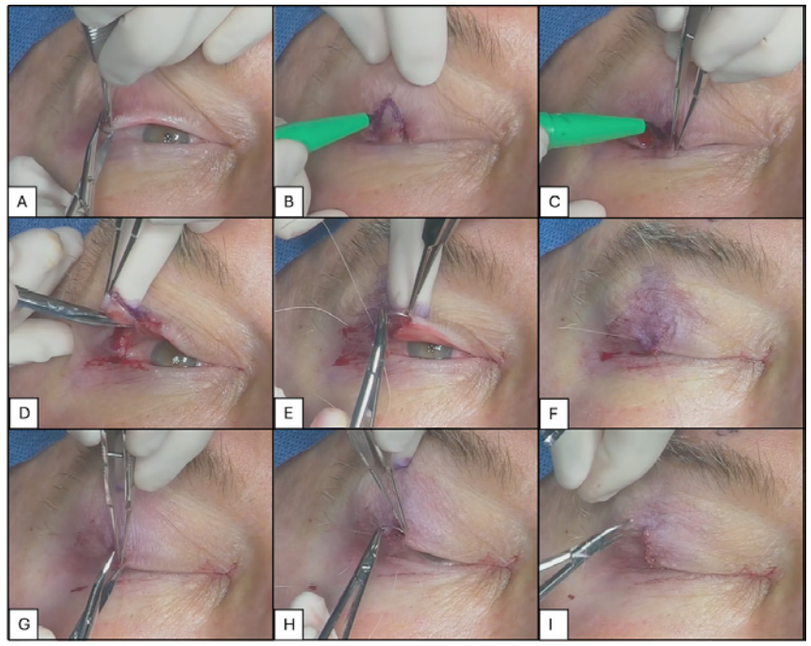

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1:52–1:57 pm

The Evolving Role of Scleral Contact Lenses in Oculofacial Surgery: A Technology and Application Update

Erin Shriver, Chau Pham, Keith Carter, Libing Kathy Dong, Christine Sindt
Department of Ophthalmology and Visual Sciences, University of Iowa, Iowa City, Iowa, United States

Introduction: Recent advances in scleral contact lenses have altered the treatment landscape for patients with ocular surface and eyelid disorders. Scleral lenses were previously used primarily for improving visual acuity in patients with corneal irregularities such as keratoconus, but with the advent of custom 3D printed scleral contact lenses the range of conditions treated with scleral lenses has broadened significantly to include neurotrophic keratitis; upper eyelid ptosis; and exposure keratopathy from congenital eyelid colobomas, trauma, facial nerve palsy, ocular cicatricial pemphigoid, Stevens-Johnson syndrome, and periocular burns.

In addition to understanding conditions where scleral lenses can be beneficial, oculofacial surgeons should understand how eyelid position and vector forces affect contact lens fit and comfort. Periocular procedures can have a dramatic positive or negative effect on contact lens fit, so it is important that oculofacial surgeons understand this dynamic. Eyelid and eyebrow ptosis repair, blepharoplasty, horizontal tightening of lids, and scraping of tarsal conjunctival epithelium for giant papillary conjunctivitis are all potential procedures that may benefit scleral contact lens fit.

Methods: The study institution has utilized custom 3D printed scleral lenses for over a decade and the oculofacial surgeons work closely with the optometrists prescribing and designing the lenses. Through years of partnership in caring for complex patients they have developed workflows and preferred practice patterns.

Results: Case presentations will be discussed demonstrating the variability in the patient conditions that are treated with scleral lenses. In cases of keratopathy due to eyelid abnormalities such as severe periocular burns, eyelid coloboma, ocular cicatricial pemphigoid, and Stevens-Johnson syndrome, the scleral contact lens allows for corneal protection while the condition is stabilizing and/or being treated. This has allowed for the timing of surgery to be optimized thereby maximizing the results.

The study institution also offers scleral contact lenses as first line treatment in patients with Cranial Nerve V and VII palsies. They have also been used in patients after corneal neurotization as their cornea recovers and the lens can be shaped around the post-operative ocular surface irregularities.

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Additionally, a ptosis shelf has been built on some custom scleral lenses which has allowed for the visual axis to be cleared in children with congenital ptosis who were not healthy enough to undergo anesthesia for surgical ptosis repair.

Conclusions: Custom 3D printed scleral lenses have dramatically changed the management of several conditions treated by oculofacial surgeons. A collaborative partnership between the oculofacial surgeon and optometrist fitting and designing the lens is critical to achieving successful patient outcomes.

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2:10–2:11 pm

Cutaneous Fixated Eye Shield: A Novel Approach to Preventing Self-Inflicted Wound Dehiscence

Frank Mei, Ethan Osias, Tatiana Rosenblatt, Angela Oh, Ronald Mancini
University of California, Los Angeles, Jules Stein Eye Institute, Los Angeles, California, United States

Introduction: Patients with intellectual and developmental disability are at higher risk for intentional and unintentional injuries.[1] This increased risk poses a surgical and post-operative challenge to ensuring patient success. Wound healing taking at least three weeks to reach 20% of final structural strength creating an extended risk for self-inflicted wound dehiscense.[2] Here we present a case of a patient with development delay who underwent suturing of an eye shield to the face to prevent self-inflicted wound dehiscence following surgery.

Methods: This is a retrospective case report of one patient at an academic institution.

Results: A 39-year-old male with a history of developmental delay, severe obesity, obstructive sleep apnea, and a tendency for sleeping in a prone position presented with upper eyelid ectropion and severe floppy eyelid syndrome in the left eye (Figure 1A-B). He had constant discomfort in his left eye. He was previously treated with topical steroids and aggressive lubrication without improvement. Given continued ocular surface disease threating ocular injury, parents elected to proceed with surgery. The patient underwent a complex upper eyelid reconstruction under general anesthesia without complications.

Given his history of developmental delay and concerns for surgery site rubbing, a patch was placed over the left eye using paper tape and liquid adhesive and the patient was discharged. Six days after his surgery, the patient presented to the emergency room after tearing the patch and sutures off resulting in wound dehiscence (Figure 1C-D). The patient was taken back to the operating room for reconstruction of the upper eyelid.

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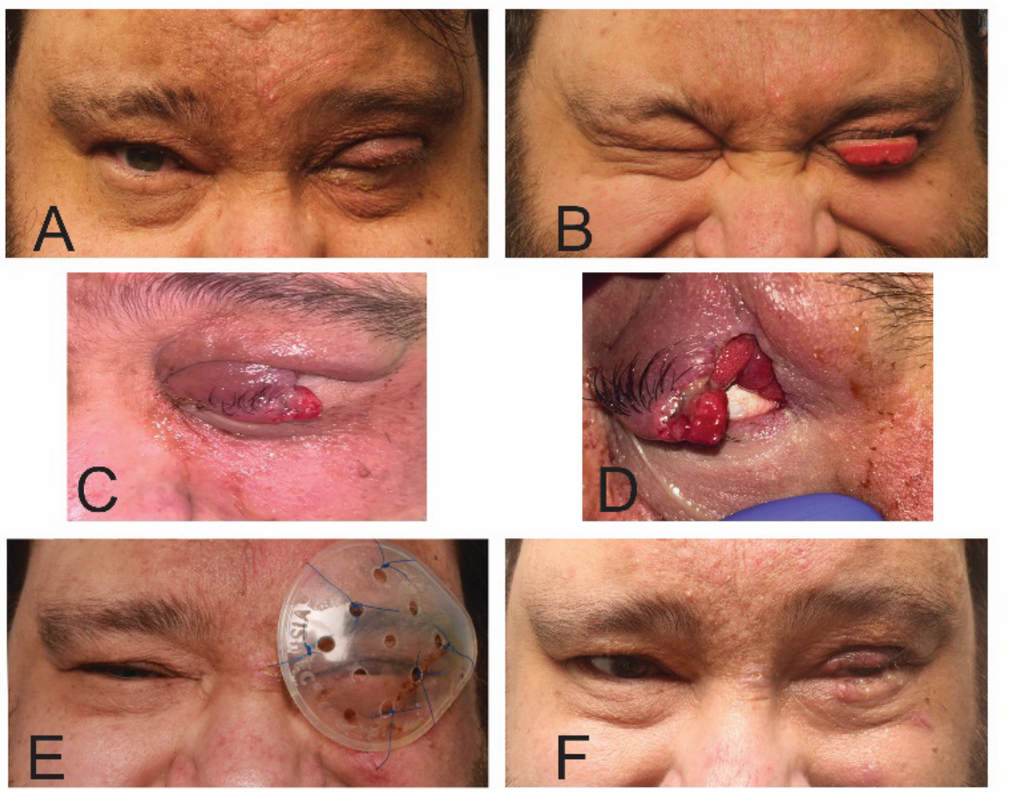
In an effort to prevent repeat post-operative self-harm, a decision was made to suture on an eye shield. A clear plastic perforated eye shield was sutured to the dermis of the forehead, cheek, temple, and nasal bridge with multiple 3-0 polypropylene sutures, weaving the suture through the holes of the shield (Figure 1E). The patient tolerated the shield for one month until removal, allowing time for the eyelid to heal. At post-operative month three, the parents noted improvement in his ocular surface irritation and the eyelid position showed improvement of his ectropion (Figure 1F).

Conclusions: An eye shield can be sutured to the face as a method to prevent self-inflicted wound dehiscence following an oculoplastic procedure. This provides an additional protective barrier against patient interference with the surgical site during the early post-operative healing period, especially in patients with intellectual and developmental disability.

Figure 1



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2:11–2:12 pm

Gender and Oculoplastic Surgeon Productivity

Kathryn Winkler[1,2], Fiona Cotter[3], Jamie Keen[1,4]
[1]Chicagoland Oculoplastics Consultants, PLLC, Des Plaines, Illinois, United States, [2]Rush University Medical Center, Ophthalmology, Oculoplastics division, Chicago, Illinois, United States, [3]Rush University Medical Center, School of Medicine, Chicago, Illinois, United States, [4]Hines VA, Ophthalmology, Chicago, Illinois, United States

Introduction: Gender differences in ophthalmology practice patterns have been documented across multiple subspecialties, but little is known about this in oculoplastics. Men and women subspecialize in oculoplastics at similar rates, allowing for straightforward comparison of practice pattern data across genders[1,2]. A comprehensive examination of the practice patterns of oculoplastic surgeons stratified by gender would inform any preconceived notions regarding differences in productivity between genders. This study aims to evaluate such practice patterns including work hours, patient volume, surgical case load, practice setting preferences, retirement planning, and the impact of extended career interruptions, to determine if there are any statistically significant differences in oculoplastic physician productivity between genders. Understanding these factors and any disparities that may exist within them is essential for workforce planning and identifying potential areas for support.

Methods: The de-identified responses of practicing ASOPRS members who opted to complete a multiple choice survey, were included in the analysis. Survey items included average number of patients seen per day, average number of surgeries performed weekly, average number of hours worked per week, predicted age of retirement, description of practice setting (private, academic, hospital owned, hybrid, other), region of practice, gender identity, current age, and history of extended leaves from work (defined as greater than one month). Responses were stratified by gender; all participants self-identified as male or female. All ordinal variables were analyzed using the Wilcoxon–Mann–Whitney test. The extended work leave variable was analyzed using Fisher's exact test, and the practice setting variable was analyzed using the χ^2 test.

Results: A total of 59 ASOPRS member responses, 17 female and 42 male, were included. There was found to be no statistically significant difference in the number of patients seen per day (P = 0.7), number of surgical cases performed per week (P = 0.4), and number of hours worked per week (P = 0.4) between male and female oculoplastic surgeons. Additionally, there is no statistically significant difference in the age range (P = 0.05) or distribution across practice settings (P = 0.4) between male and female oculoplastic surgeons. There was found to be a statistically significant difference in the predicted age of retirement (P = 0.008), and extended leaves of absence (Fisher Exact Test Value of 0.0007) between males and females. Females were more likely than males to report planning

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to retire at an earlier age (61-65) as compared to men (66-70). Females were also more likely to report an extended leave (53%) as compared to males (10%) with parental leave being the primary reason cited.

Conclusions: Though female surgeons are more likely to report taking an extended leave and retiring at an early age, current productivity measures match that of male colleagues. Based upon the results of this study, stereotypical concerns on productivity discrepancies between genders are not warranted.

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2:12–2:13 pm

A Rare Midline Mass in an Infant: Nasal Glial Heterotopia Treated with Glabellar Flap Reconstruction

Amy Huang, Sudarshan Srivatsan, Katherine Lucarelli, Caroline Vloka, Daniel Ozzello, Sophie Liao, Eric Hink
University of Colorado, Ophthalmology, Aurora, Colorado, United States

Introduction: Glial heterotopia is a rare congenital abnormality in which mature glial tissue is located outside the central nervous system. The nose and nasopharynx are the most frequently involved sites, and lesions in these locations are collectively referred to as nasal glial heterotopia. Nasal glial heterotopia can be characterized as either internal, within the nasal cavity, or external, on the dorsum or sidewall of the nose, typically within the subcutaneous tissue.[1]

Nasal reconstruction has been well characterized in adults, with extensive literature detailing the history, techniques, and outcomes of forehead and glabellar flap reconstruction. However, reports of their use in the pediatric population, particularly in infants, remain limited. Here, we present a case of an infant with external nasal glial heterotopia who underwent complete resection with glabellar flap reconstruction at six months old.

Methods: This is a case report of a single infant who was examined and underwent surgical resection and reconstruction.

Results: A 1-day-old male infant was referred to Ophthalmology for evaluation of a large congenital midline nasal mass identified prenatally. The patient did not any significant prenatal history of associated congenital anomalies. On his initial examination, 2.7 x 1.5 x 1.0 cm soft, erythematous mass was noted involving the right nasal dorsum and glabellar region, located superomedial to the medial canthus (Figure 1). Magnetic resonance imaging (MRI) with and without contrast demonstrated an exophytic, ovoid mass arising from the right nasal dorsum and glabellar region without internal enhancement and without evidence of intracranial extension. At six months of age, the patient underwent complete surgical excision of the mass with reconstruction using a glabellar flap (Figure 2). Intraoperative pathology demonstrated benign glial tissue with associated vascular structures and no evidence of malignancy, with final pathology confirming nasal glial heterotopia. At nearly one year postoperatively, the patient continued to heal well, though additional glabellar flap debulking may be necessary in the future (Figure 3). Prior reports suggest that forehead flap reconstruction in young children can achieve acceptable aesthetic and functional outcomes with preserved nasal growth, as demonstrated in small pediatric series and an isolated infant case with long-term follow-up; however, experience in this population remains limited.[2,3]

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Conclusions: Nasal glial heterotopia is a rare congenital abnormality characterized by the presence of mature glial tissue outside the central nervous system, most commonly involving the nose or nasopharynx. Given its rarity, clinical diagnosis may be challenging, and evaluation of a congenital midline nasal mass should include imaging to assess for intracranial extension. Although glabellar flaps are well described for nasal reconstruction in adults, their use in infants has been reported less frequently. Despite limited representation in the literature, glabellar flap reconstruction can be considered as a viable reconstructive option even in this population.

Figure 1

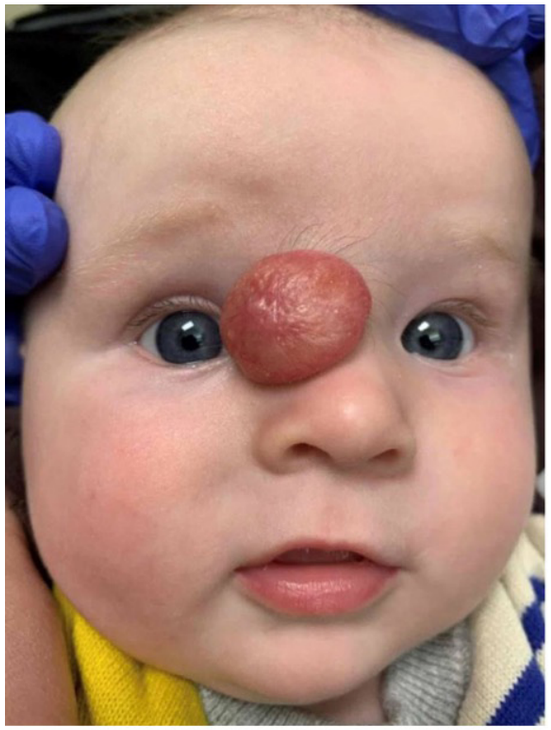

Figure 2

Figure 3

Figure 4

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2:13–2:14 pm

Can the Cutler Beard Procedure Be Repeated?

Wesley Brundridge[1,2], Armin Avdic[2], David Holck[2]
[1]US Army, Ophthalmology - Brooke Army Medical Center, San Antonio, Texas, United States, [2]Eyeplastx, San Antonio, Texas, United States

Introduction: Sebaceous carcinoma of the eyelid is a rare, aggressive malignancy and may masquerade as benign or inflammatory conditions. Reconstruction following large full-thickness eyelid defects presents significant functional and anatomical challenges due to the need to restore eyelid rigidity, blink dynamics, and ocular surface protection. These challenges are amplified in patients with prior eyelid reconstruction, where anatomy is altered and clinical examination may be limited or difficult. The Cutler–Beard flap remains a valuable option for upper eyelid reconstruction but complicates future oncologic surveillance and revision surgery.

Methods: Case Report

A patient with a history of left upper eyelid (LUL) malignancy underwent excision via Mohs surgery for a squamous cell carcinoma, and the resulting defect was reconstructed using a Cutler-Beard flap (Figure 1).

Four years later the patient presented with a new LUL lesion and pain of the same eyelid (Figure 2). Excision of the LUL lesion was performed from the skin and palpebral conjunctiva side. Both specimens revealed benign pathology, including reticulated seborrheic keratosis of the skin and a dilated secretory gland duct of the conjunctiva. The patient developed persistent left-sided epiphora and ocular surface symptoms which were attributed to eyelid malposition and posterior lamellar insufficiency, with associated exposure keratopathy.

During planned left upper eyelid revision with canthotomy, cantholysis and mucous membrane grafting, a suspicious lesion was identified at the central upper eyelid margin and excised (Figure 3). Histopathologic analysis revealed sebaceous carcinoma with tumor present at specimen edges.

The patient underwent repeat LUL Mohs surgery, resulting in a full-thickness defect involving greater than 75% of the LUL. The defect was reconstructed using a modified Cutler-Beard flap (Figure 4). The LUL tarsus was recreated by using an ear cartilage graft which was harvested from the left greater auricle.

Post operatively, the patient developed mild secondary left lower eyelid cicatricial ectropion and inferior symblepharon. A series of two intralesional 5-fluorouracil and triamcinolone acetonide injections were performed, resulting in improvement without the need for further surgical intervention.

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At long-term follow-up one year post operatively, the patient demonstrated stable eyelid position, adequate eyelid closure, and a healthy ocular surface (Figure 5). There was no clinical evidence of tumor recurrence. The patient remained comfortable on topical ointment therapy and continued routine oculoplastic surveillance.

Results: This case highlights the diagnostic and reconstruction challenges of malignancy in previously reconstructed eyelids, where altered anatomy and chronic ocular surface symptoms may obscure clinical perceptions.

From a reconstructive standpoint, restoration of both lamellae is critical in massive upper eyelid defects. Auricular cartilage provides durable tarsal substitution when native tarsus is absent, and the Cutler–Beard flap remains a reliable option even in revision settings.

Conclusions: Sebaceous carcinoma may arise years after eyelid reconstruction and may be discovered incidentally during revision surgery. Despite prior reconstruction and extensive tissue loss, staged oculoplastic techniques can achieve durable eyelid function, ocular surface protection, and acceptable long-term outcomes.

Figure 1

Figure 2

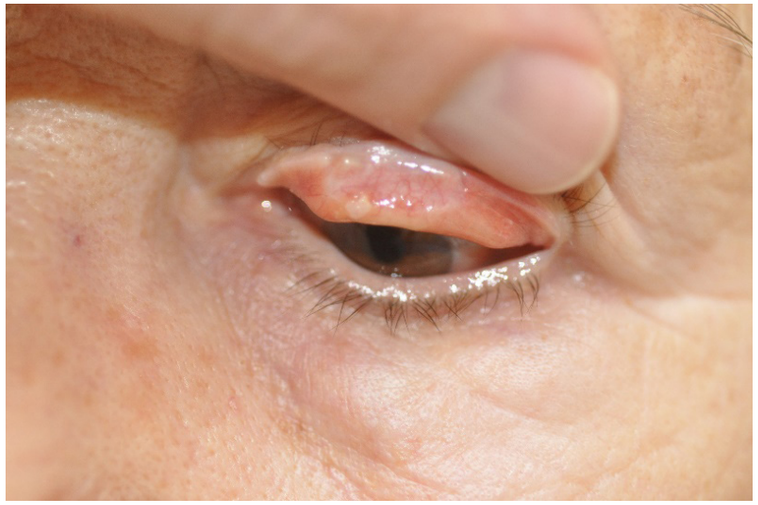

Figure 3

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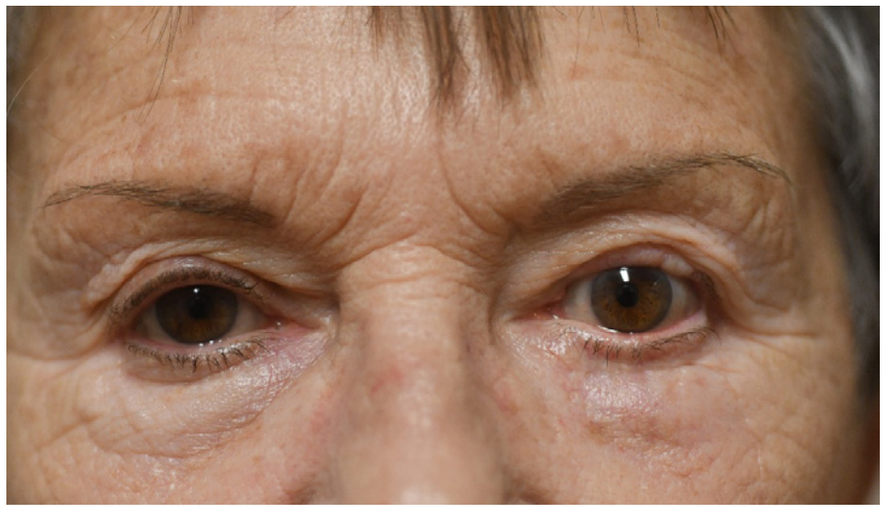
Figure 4

Figure 5



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2:16–2:21 pm

Dedicated Orbital Reconstruction and Ophthalmic Outcomes after Globe-sparing Maxillectomy for Orbit-Involving Sinonasal Neoplasms

Lilly Wagner[1], Krishna Sinha[2], Bhoomi Dave[1], Nishanth Iyengar[1]
[1]Ophthalmology, Mayo Clinic, Rochester, Minnesota, United States, [2]School of Medicine, Mayo Clinic, Scottsdale, Arizona, United States

Introduction: Orbit-involving sinonasal neoplasms (OISNs) are more frequently resected with globe-spearing approaches since the introduction of effective neoadjuvant treatments.[1,2] Indications and techniques for dedicated orbital reconstruction after globe sparing maxillectomy are variable and standard surgical guidelines are lacking.[3,4] This study compares ophthalmic symptoms following globe-sparing maxillectomy with and without dedicated orbital reconstruction.

Methods: Records of all globe-sparing maxillectomy cases for OISNs with at least 3 months of postoperative ophthalmology follow-up at a multi-site institution from 2005–2024 were reviewed. Dedicated orbital reconstruction was classified as additional procedures separate from free flap reconstruction of the maxillectomy defect, such as bone grafts, alloplastic implants, or support of the globe with autologous or allogenic fascia or tendon grafts. Categorical variables were compared between the reconstructed and non-reconstructed groups using Fisher's exact test. The Institutional Review Board approved this retrospective study.

Results: A total of 36 cases were included, and 15 of those (42%) received dedicated orbital reconstruction. Ophthalmic symptoms at baseline were not significantly different between groups, and grades of orbital involvement were similar (Table 1). The rates of resection of the orbital rim and floor were significantly higher in the group who received orbital reconstruction (87% vs. 24% and 100% vs. 24%, respectively; $p<0.01$). Oculoplastic surgeons were part of the surgical team in only one quarter of cases in both groups. Post-operative ophthalmic symptoms were common and increased from baseline in almost all categories in both groups. The rates of post-operative eyelid and globe malposition were significantly higher in the reconstructed group (73% vs. 33%, $p=0.04$; and 67% vs. 24%, $p=0.02$).

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Conclusions: Dedicated orbital reconstruction after globe-sparing maxillectomy for OISNs is mainly used in cases with extensive loss of bony structures. Current techniques do not adequately reduce the risk for adverse ophthalmic outcomes such as eyelid and globe malposition, exposure keratopathy and diplopia. Oculoplastic surgeons should be part of the surgical team to ensure adequate patient counseling and optimize reconstructive techniques.

Table 1

Orbit-Involving sinonasal neoplasms treated with Globe-sparing Maxillectomy (N=36)	**No Orbital Reconstruction (n=21)**	**Orbital Reconstruction (n=15)**	**P-value**
Baseline Ophthalmic Symptoms			
Diplopia (%)	3 (14%)	3 (20%)	1.0
Eyelid Malposition (%)	2 (10%)	2 (13%)	1.0
Globe Malposition (%)	6 (29%)	3 (20%)	0.71
Periorbital Swelling (%)	2 (10%)	1 (7%)	1.0
Exposure Keratopathy (%)	0	0	NA
Dry Eye Syndrome (%)	0	0	NA
Epiphora (%)	5 (24%)	1 (7%)	0.38
Restrictive Strabismus (%)	1 (5%)	1 (7%)	1.0
Grade of Orbital Involvement*			
Grade I	7 (33%)	6 (40%)	0.74
Grade II/III	14 (67%)	9 (60%)	
Bony Resection			
Orbital Floor Resection	5 (24%)	13 (87%)	**<0.001**
Orbital Rim Resection	5 (24%)	15 (100%)	**<0.001**
Postoperative Visual Acuity 20/40 or better	14 (78%)	10 (67%)	0.70
Oculoplastic Surgeon Involved	5 (24%)	4 (27%)	1.0
Type of Orbital Reconstruction			
Alloplastic Implant/Hardware (%)	n/a	10 (67%)	
Bone Graft (%)	n/a	6 (40%)	
Fascia Graft (%)	n/a	4 (27%)	
Postoperative Ophthalmic Symptoms			
Diplopia (%)	6 (29%)	7 (47%)	0.31
Eyelid Malposition (%)	7 (33%)	11 (73%)	**0.04**
Globe Malposition (%)	5 (24%)	10 (67%)	**0.02**
Periorbital Swelling (%)	3 (14%)	2 (13%)	1.0
Exposure Keratopathy (%)	4 (19%)	6 (40%)	0.26
Dry Eye Syndrome (%)	5 (24%)	3 (20%)	1.0
Epiphora (%)	15 (71%)	6 (40%)	0.09
Restrictive Strabismus (%)	3 (14%)	6 (40%)	0.12

*: Grade I: Tumor adjacent to orbital wall, causing bowing or bony erosion
Grade II: Extraconal orbital soft tissue involvement
Grade III: Extraocular muscle/intraconal involvement

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2:21–2:26 pm

3D Electromagnetic Navigation System for Orbital Decompression Surgery: A Case Series

John Nguyen[1,6], Galaxy Desire[1], Olivia Nieto Rickenbach[2], Janani Sundar[3], Taylor Potter[4], Richard Cui[1], Diane Wang[5], Peyton Powroznik[1], Chadi Makary[6]
[1]Ophthalmology and Visual Sciences, West Virginia University, Morgantown, West Virginia, United States, [2]Department of Otolaryngology, Head and Neck Surgery, West Virginia University, Morgantown, West Virginia, United States, [3]West Virginia University, Morgantown, West Virginia, United States, [4]Meharry Medical College, Nashville, Tennessee, United States, [5]Ophthalmology, Emory University, Atlanta, Georgia, United States, [6]Otolaryngology, Head and Neck Surgery, West Virginia University, Morgantown, West Virginia, United States

Introduction: Orbital decompression surgery still plays an important role in the management of thyroid eye disease (TED) refractory to medical management. Intraoperative use of image-guided navigation systems improves precision and minimizes orbital complications, and we herein describe the utilization of a 3D electromagnetic navigation system featuring 3D electromagnetic tracking, AI powered navigation, and fast anatomical mapping[1-4]. This case series compares the use of TRUDI system versus the StealthStation navigation system in orbital decompression[2].

Methods: A single-center, surgeon group retrospective chart review was performed on TED patients who underwent orbital decompression with StealthStation (Medtronic, Memphis, TN) or TRUDI (Acclarenet, Irving, CA) navigation system from 2024-2025. Indications were proptosis, lagophthalmos, and exposure keratoconjunctivitis. Patients who had undergone previous orbital or other concurrent eyelid surgeries were excluded. Data reviewed included patient characteristics, surgical characteristics, and clinical outcomes at minimum of 1-month post-operatively.

Results: 18 balanced orbital decompressions were performed for 11 patients of 81.8% female with mean age of 48.8. A total of 8 orbital decompression cases utilized the StealthStation while 10 cases utilized the TRUDI. Additionally, 62.5% of patients in both groups were smokers, 37.5% of StealthStation and 25.0% of TRUDI cases had diabetes, and 37.5% of both groups had hypertension. Mean pre-operative exophthalmometry was 23.7 in the TRUDI cases and 23.9mm in Stealthstation cases, and average post-operative exophthalmometry was 21.8mm in the StealthStation Group and 21.7mm in the TRUDI group. TRUDI assisted surgeries had slightly shorter operative times (M=102, SD=25 minutes) than Stealth assisted surgeries (M=116, SD=29). No patients in either group experienced any intra-operative or immediate post-operative complications.

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Conclusions: 3D electromagnetic navigation system provides a simplified, more efficient workflow, which may improve surgeon efficiency and reduce operative time. Shorter operative time and reduced time under anesthesia can decrease risk of complications, operative costs, and improve patient outcomes. This pilot study is limited by small sample size and additional research is needed to validate these findings on the benefit of 3D electromagnetic nagivation in orbital decompression surgery.

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2:26–2:31 pm

A Novel Trans-Orbital Surgical Procurement Technique for Human Whole Eye Transplant

Andrea Kossler[1], Farzad Pakdel[2], Benyam Kinde[3], Mia Dong[3], Dung Nguyen[1], Taehyung Kim[3], Niloofar Pirmarzdahti[3], Vladimir Mamchik[4], Elizabeth Tadevosyan[3], Jeffrey Goldberg[1]
[1]Ophthalmology, Stanford University School of Medicine, Palo Alto, California, United States, [2]Ophthalmology, Stanford University, Palo Alto, California, United States, [3]Palo Alto, California, United States, [4]Ophthalmology, Palo Alto, California, United States

Introduction: To develop an orbital surgical technique for retrieval and transplant of the human whole eye. An orbital surgical approach would improve access, morbidity, and timing by avoiding intracranial entry during tissue procurement.

Methods: Here we present a case series of donor cadaveric rehearsals to explore novel approaches to tissue procurement. We designed an orbital surgical technique that aims to retrieve the globe and optic nerve, the ophthalmic artery and vein, and periocular soft tissues. Surgical rehearsals were performed on fresh human cadaveric specimens. Endoscopic photography and video were used to document the approach. Micro-anastomosis technique was used for anastomosis of optic nerve and delicate orbital vascular system to the facial artery and venous system.

Results: A trans-caruncular orbital endoscopic approach was used to access the optic canal. The lesser wing of the sphenoid bone was drilled to expose the canalicular portion of the optic nerve and main ophthalmic artery trunk. Using endoscopic guidance, the optic nerve and main ophthalmic artery were transected. Orbital exenteration was performed to procure the orbital block tissue including the globe and neurovascular complex. Extraconal soft tissue and intraconal fat were carefully resected, preserving the complex and delicate orbital vessels. The globe and neurovascular complex were transferred to another human cadaver orbital socket that was previously prepared by enucleation. The donor ophthalmic artery was anastomosed to the superficial temporal artery, and the donor superior ophthalmic vein was anastomosed to the superficial temporal vein of the facial vasculature using microanastomosis techniques. Donor and recipient optic nerve anastomosis was made. In all procedures, retrieved optic nerve, ophthalmic artery and vein were harvested successfully intact and the transferred globe and orbital tissues were well situated in the recipient socket. External facial compromise was minimized, maximizing donor aesthetics.

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Conclusions: This new orbital endoscopic procurement demonstrates an improved surgical approach, avoiding transcranial entry, optimizing optic nerve and ophthalmic artery length and access, and minimizing donor facial aesthetic impact. Furthermore, this case series identifies a procurement approach that can be performed in conjunction with enucleation in the recipient, to allow for a minimally invasive approach with broader indications. The method provides a viable avenue for microvascular reanastomosis by leveraging facial arteries and veins, thereby supporting the completion of all steps of the whole-eye transplantation.. The results showed promising-Together this series offers an orbit-specific surgical approach to whole eye transplant for further dissemination and study.

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2:33–2:38 pm

Lacrimal Gland IgG4 Disease presenting as Sarcoidosis: Mimicry, Concurrence, or a Spectrum of Idiopathic Disease? A Case Report and Discussion

Matthew Vicinanzo[1,2] Sophia Bertot[1]
[1]UAB Department of Ophthalmology and Visual Sciences, UAB Heersink School of Medicine, Birmingham, Alabama, United States,
[2]Alabama Oculoplastic Associates, PC, Birmingham, Alabama, United States

Introduction: Common culprits of inflammatory dacryoadenitis include Sarcoidosis, Idiopathic Orbital Inflammation (i.e. "orbital pseudotumor"), SjögrenSyndrome, Thyroid Eye Disease, and IgG4-related disease (IgG4-RD).[1,2] Sarcoidosis is a multisystem inflammatory disorder predominantly affecting young African American women that characteristically presents with pulmonary involvement but can afflict many other organ systems,including the lacrimal glands. IgG4-RD is a multisystem fibro-inflammatory disease that can affect nearly any organ but has a predilection for the pancreas, orbital adnexal structures and salivary glands.[3]

A 30-year-old African American female with a past medical history only notable for hypertension, presented for bilateral foreign body sensation.The patient was found to have massively large, firm, mobile, infiltrated lacrimal glands (image 1). She stated the masses were nontender, did not fluctuate in size, and were slowly progressive over the past five years.

Methods: A CT of the orbits was employed and revealed massively enlarged bilateral lacrimal glands with globe displacement (Image 2). Serum ACE and Chest X-rays were obtained for further evaluation of suspected sarcoidosis, revealing a highly elevated ACE level of 127 and right perihilar adenopathy /opacities and mild bilateral peribronchial thickening consistent with a clinical diagnosis of pulmonary sarcoidosis (Image 3). Bilateral anteriororbital resection of the lacrimal glands were sent for pathologic analysis.

Results: Lacrimal gland biopsies (Image 4) revealed extensive fibrosis, lymphoid proliferation, along with increased plasma cell and eosinophilicinfiltrate, very consistent with IgG-4 related disease–specifically eosinophilic angiocentric fibrosis (EAF) and definifitve IgG4 immunohistochemical-positive plasma cells (Image 5). No granulomatous changes were noted in any of the tissue.

Conclusions: This patient presented as a "text-book case" of orbital and pulmonary sarcoidosis with presumed lacrimal gland infiltration. Yet, IgG4-RD is proven to be a master mimicker of not only orbital inflammatory diseases but also systemic diseases. Moreover, sarcoidosis is a diagnosis of exclusion. As such, it is not sufficient to diagnose patients based on clinical presentation and radiographic imaging. All patients should undergo lacrimal gland biopsy for diagnostic certainty. In cases such as ours, with additional pulmonary findings, pulmonary biopsy should be pursued as there are reports of concurrent Sarcoidosis and IgG4-RD, and may represent a spectrum of one disease, rather than two seperately existing diseases.[4-6]

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Figure 1

Figure 2

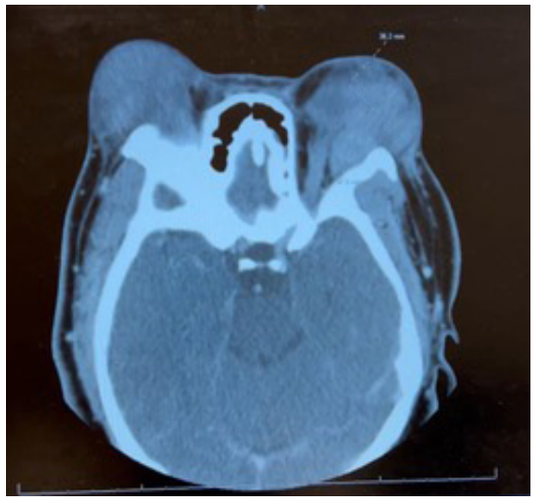

Figure 3

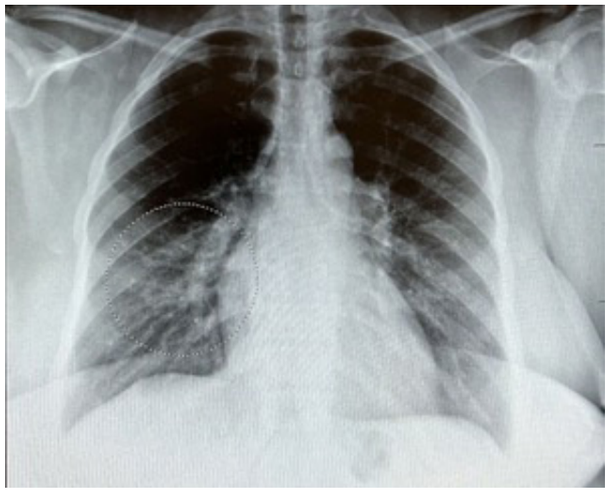

Figure 4

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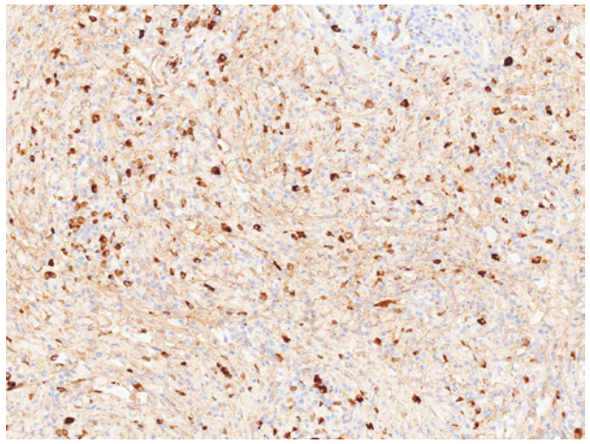

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2:38–2:43 pm

Beyond the Cadaver: Developing a Virtual Reality-Based 3D Orbital Atlas Validated against the Baseline Orbital Orientation Score for Trainees (BOOST)

Chad Lewis, Shay Nakahira, Andrea Kossler
Department of Ophthalmology, Byers Eye Institute, Stanford University School of Medicine, Palo Alto, California, United States

Introduction: While cadaveric dissection has been the traditional cornerstone of oculofacial plastic surgery anatomical education, its utility is increasingly hampered by high costs, limited specimen availability, and the substantial time and technical expertise required to expose and intercept deep orbital apex anatomy and its complex relationship to the eye and skull base.

Methods: To address these limitations, we first established a quantitative benchmark for educational excellence - the "Baseline Orbital Orientation Score for Trainees" (BOOST) inventory using a prospective 12-item survey of residents and fellows (n = 17) following a cadaveric lab. This benchmark provided the performance targets for our next-generation Virtual Reality (VR)-Based Orbital Atlas. The VR platform was developed using a publicly available, digitized stereoscopic photo atlas of expertly prosected human cadavers, captured in multiple anatomical planes famously known as the "Bassett Collection," named after former Stanford School of Medicine anatomist, Dr. David Bassett. Unlike traditional textbooks, our tool utilizes 3D stereoscopic photos to allow trainees to navigate the orbital volume digitally. The development focused on three-dimensional accessibility, cost-reduction (eliminating specimen fees), and "taking anatomy education to the next level" through the ability to toggle visual overlays and provide clinical pearls in virtual space to aid learning.

Results: The BOOST benchmark established high expectations for spatial education: trainees reported mean scores of 4.47/5 for *Global Spatial Awareness* and 4.85/5 *for Clinical Translatability* following cadaveric labs. Notably, 100% of participants agreed that physical dissection was superior to textbooks for learning the 3D layout of the orbit. Our VR tool was engineered specifically to address the "mental mapping" gaps identified in the BOOST inventory. By leveraging stereoscopic 3D photos, the tool provides a scalable and highly accessible digital environment that replicates the 3D "depth" of anatomy seen in the cadaver lab at a fraction of the cost of maintaining wet labs.

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Conclusions: The BOOST inventory provides the statistical foundation required to move surgical education into the digital age. By quantifying what makes cadaveric labs successful, we have developed a VR platform that aims not just to replicate the lab, but to exceed it in accessibility and repeatability. This research involves a non-inferiority trial with forthcoming results. It is our aim to validate that our 3D stereoscopic VR platform meets or exceeds the BOOST standards, paving the way for a modern standard in orbital surgery training.

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SPECIAL PANEL: THE ART OF THE DIFFICULT: CHALLENGING CASES

Friday, June 12

Moderators: Mark J. Lucarelli, Julian D. Perry

3:31-3:39 pm

To Treat or Not to Treat

Kenneth E. Morgenstern

3:39-3:47 pm

Pearls in Unhappy Patients, Communicating Effectively, and Management Considerations

Kenneth V. Cahill

3:47-3:55 pm

Pearls in Surgical Challenges, Revision Surgery, Avoiding Burnout

Catherine Y. Liu

SPECIAL PANEL: THE FACE OF HOPE

Friday, June 12

Moderator: Thomas E. Johnson

4:11-4:21 pm

Ukraine

Raymond I. Cho

4:21-4:29 pm

Ethiopia

Dane H. Slentz

4:29-4:37 pm

Mongolia

Ebby Elahi

4:37-4:47 pm

Honduras

H. Joon Kim

7:31–7:34 am

Primary Ewing Sarcoma in the Orbit of an Adult Woman

Sri Meghana Konda[1], Annika Samuelson[2], Amee Azad[1], Anna Stagner[3], Nahyoung Grace Lee[1]
[1]Ophthalmic Plastic and Reconstructive Surgery Service, Massachusetts Eye and Ear, Boston, Massachusetts, United States, [2]Department of Ophthalmology, Massachusetts Eye and Ear, Boston, Massachusetts, United States, [3]David G. Cogan Laboratory of Ophthalmic Pathology, Massachusetts Eye and Ear, Boston, Massachusetts, United States

Introduction: Ewing sarcoma (ES) is an aggressive, small round blue-cell, fusion-driven sarcoma that primarily affects pediatric and young adult populations. [1]The peak incidence occurs between 15 and 20 years of age with fewer than 1% of cases occurring in patients over the age of 60.[2,3] ES of the orbit is rare with around 70 cases reported in the literature.[4] The authors present a unique case of primary orbital ES in a sexagenarian.

Methods: A retrospective case review

Results: A 66-year-old woman with a history of type 2 diabetes mellitus, COPD on home oxygen, and multiple prior strokes presented to the emergency department with a two-day history of progressively worsening left eye pain and vision loss. She denied any prior ophthalmic disease, cancer history, or surgery.

On examination, best-corrected visual acuity was 20/40 in the right eye (OD) and 20/200 in the left eye (OS). Intraocular pressures were normal. Extraocular movements were full OD and globally limited OS. External examination OS revealed proptosis with periorbital edema and erythema and tenderness to palpation (Image 1). Exophthalmometry measured 15mm OD and 20mm OS. Anterior examination of the left eye showed 360-degree chemosis. Fundus examination revealed optic disc hemorrhage and edema with tortuous vessels OS; the right eye was unremarkable.

Laboratory evaluation was significant for leukocytosis (15.11 x 10^9/L) and elevated erythrocyte sedimentation rate (40mm/hr) and C-reactive protein (67.2mg/L). MRI orbits with contrast demonstrated a heterogenous-appearing left orbital mass in the superomedial orbit measuring 2.7 x 2.3 x 1.9cm, exerting mass effect on the adjacent globe and optic nerve. There was also mild retroorbital fat

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stranding, preseptal soft tissue thickening, and asymmetric prominence of the left supraorbital notch and nerve. The patient was admitted for further work up and started on intravenous (IV) vancomycin and piperacillin-tazobactam.

CT imaging of the neck, chest, abdomen, and pelvis identified indeterminate pulmonary nodules and dilation of the biliary and pancreatic ducts. Subsequent whole-body PET imaging demonstrated no lymphadenopathy or distance disease. She was continued on antibiotics with the addition of IV methylprednisolone with symptomatic improvement, and by hospital day three, visual acuity improved to 20/70 OS. The patient was discharged on a 7-day course of cephalexin with a prednisone taper and was scheduled for a biopsy with oculoplastics.

The patient subsequently underwent a left orbitotomy with incisional biopsy. Intraoperatively, a well-circumscribed, firm orbital mass with a pseudocapsule was identified, containing a dense, caseous-appearing material in the supraorbital/supratrochlear neovascular bundle region. Histopathology revealed a monomorphic round blue cell tumor (Image 3). Immunohistochemistry showed strong diffuse nuclear staining for NKX2.2 (Image 4A) with diffuse membranous staining for CD99 (Image 4B). A next-generation sequencing-based fusion assay detected the canonical EWSR1::FLI1 fusion.

Conclusions: ES is a rare orbital tumor commonly arising in bone and mainly affecting children; many orbital cases are metastatic from distant sites. The authors describe the oldest known patient with primary orbital ES. This highlights the important consideration of ES for rapidly progressive orbital masses even in atypical age groups. Histopathology, immunohistochemical staining and molecular genetic studies together confirm the diagnosis.

Figure 1

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Figure 2

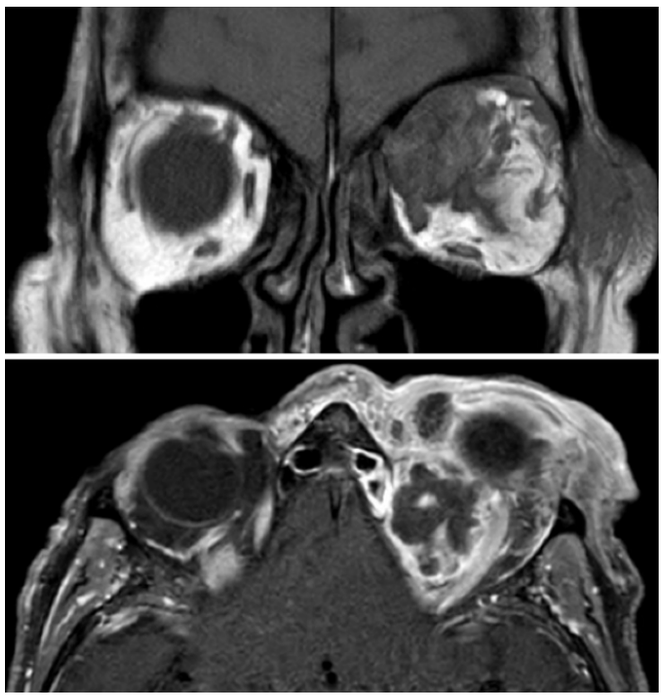


Figure 3

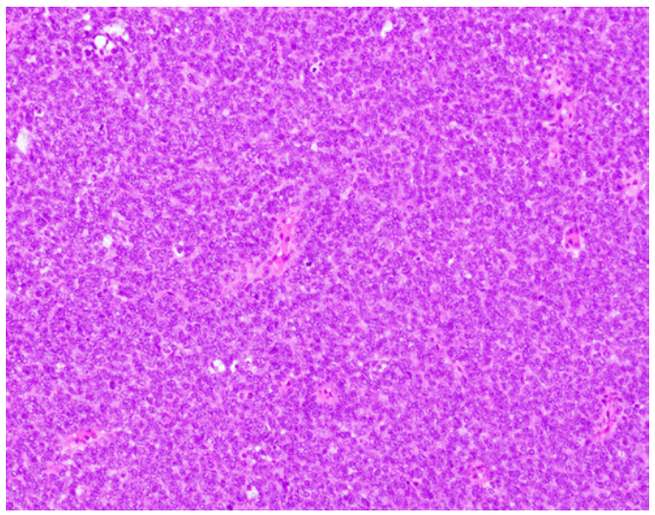
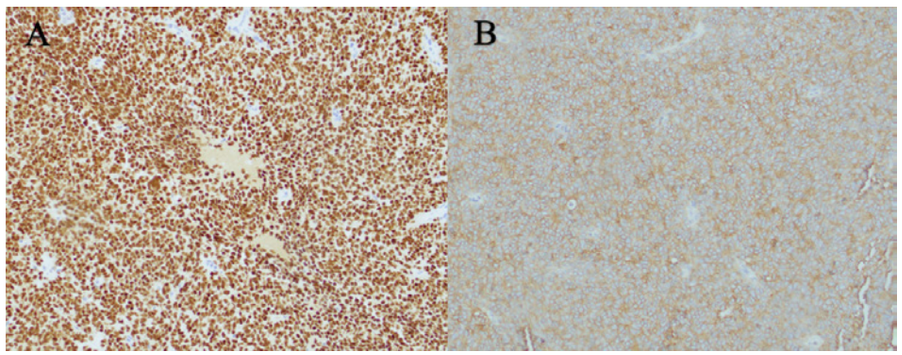


Figure 4



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7:34–7:37 am

Cutaneous Fistula Formation after Resection of Sinonasal Tumors

Angela Oh[1], Christine Mavilian[1], Tatiana Rosenblatt[1], Timothy Lee[2], Katherine Lucarelli[1,3], Frank Mei[1], Daniel Rootman[1]
[1]UCLA Stein Eye Institute, Los Angeles, California, United States, [2]Los Angeles, California, United States, [3]Department of Ophthalmology, University of Colorado, Aurora, Colorado, United States

Introduction: Cutaneous fistulae are rare complications related to the management of sinus malignancy. The rate of fistula formation in patients with advanced sinonasal malignancies can be up to 10% at five years and may require multiple reconstructions, emblematic of the complexity inherent in management.[1] Herein, we present patients with sinonasal cancers who developed cutaneous fistulae and describe their clinical course and management to help identify factors that may contribute to fistula formation.

Methods: A cross-sectional cohort study in which we reviewed patients with sinonasal tumors from 2019-2025 at UCLA. All patients who developed fistulae following initial treatment for their sinonasal tumor were included.

Results: This study identified 12 patients with fistula formation. Three representative case examples are shown here (Figure 1). The mean age was 57 ± 11.1 years, and 8% were female. The most common diagnosis was squamous cell carcinoma (58%), with single cases of inverted papilloma, adenocarcinoma, adenocystic carcinoma, neuroendocrine carcinoma, and spindle cell carcinoma. All patients underwent surgical resection for their sinus tumor, including eight (67%) patients who underwent a maxillectomy to remove the initial tumor. Five (42%) patients underwent orbital rim sparing surgery and three (25%) were managed with orbital floor reconstruction. Four (33%) had a flap reconstruction (one rotational cheek flap, one paramedian flap with a radial forearm free flap, one myocutaneous flap from the trunk, and one myocutaneous midface flap) at initial resection.

All but one patient (92%) received adjuvant radiotherapy, which was always started within three months following initial surgery. Three patients developed fistulae prior to the initiation of radiotherapy, while the remaining 9 (75%) had fistula formation afterwards, occurring on average 8.6 months (range 3-24 months) following radiotherapy.

Six (50%) patients underwent fistula reconstructive surgery. This included paramedian forehead flap reconstruction (33%), myocutaneous flap reconstruction (33%), canthoplasty (50%), and tarsorrhaphy (33%). Of the six patients who underwent fistula reconstruction, two demonstrated fistula resolution at most recent follow-up (18.3 months). One of these patients was repaired with a myocutaneous midface lift, removal of orbital hardware, and lower eyelid canthoplasty. The remaining patient had sharp removal of the fistula tract and a skin flap was created with closure of the deep mucosal tissue. Another patient had reduction of the fistula size but not complete resolution. Of all patients, one died secondary to complications from their initial tumor.
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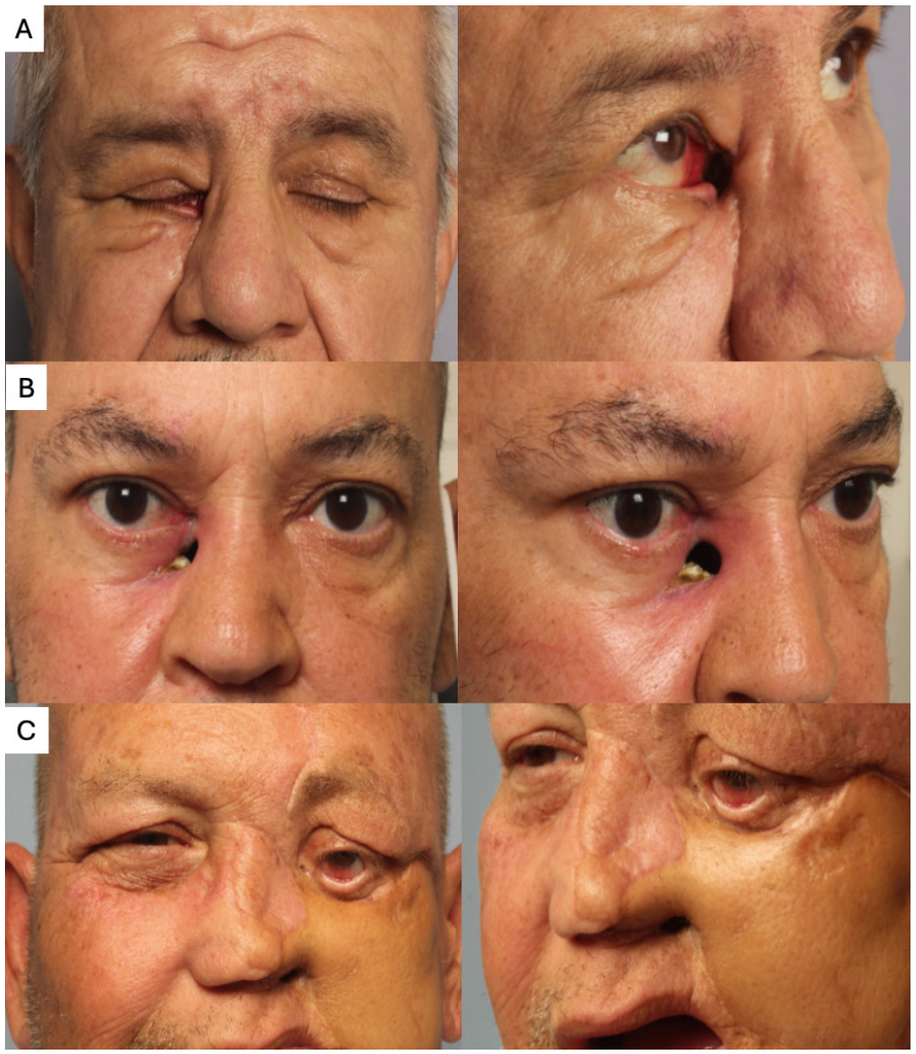
Conclusions: Although almost half of patients underwent fistula reconstruction, only two patients (17%) had fistula resolution at most recent follow-up. Sinocutaneous fistulae are a challenging complication of sinonasal tumor management and despite surgical intervention, tend to persist and recurrence rate after reconstruction is high.

Figure 1



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7:37–7:40 am

Surgical Trifecta for the Management of Refractory Socket Contracture Utilizing a 4-Vent Hole Conformer

James Fleming[1], Fabliha Mukit[1], Catherine Anderson-Quiñones[1], Robert S. Thomas[2], Robert A. Thomas[2], Constance Fry[1]
[1]Oculofacial Plastic and Reconstructive Surgery, UTHSC - Hamilton Eye Institute, Memphis, Tennessee, United States, [2]Thomas Ocular Prosthetics, Germantown, Tennessee, United States

Introduction: Severe contraction of the anophthalmic socket prevents ocular prosthesis placement and compromises cosmesis. Refractory socket contracture remains a significant oculoplastic challenge, influenced by patient compliance, severity of scarring, and underlying etiology. Although multi–vent hole conformers were described for socket reformation in the 1940s and 1950s, they did not evolve into a durable or widely adopted technique. Subsequent reconstructive strategies have produced variable results, largely because existing approaches address isolated components of failure rather than the full pathophysiology of recurrent contracture. We present a novel technique using a four–vent hole conformer that is easily fabricated and readily customizable by the ocularist (Figure 1), as a fixed fornix-expanding device, within a combined surgical strategy.

Methods: We present a case demonstrating a novel conformer-based technique for fixed fornix expansion with tissue augmentation, and adjunctive Mitomycin C (MMC) in recurrent anophthalmic socket contracture. A focused review of the literature on contemporary management strategies for refractory socket contracture was also performed.

Results: A 75-year-old female with a history of left retinal detachment complicated by neurotrophic keratitis and exposure keratopathy (Figure 2a) underwent enucleation with placement of an 18-mm porous polyethylene implant. Significant forniceal contracture was encountered intraoperatively; despite lysis of symblepharon, a standard conformer could not be placed, and a temporary symblepharon ring fashioned from intravenous tubing was secured to the fornix (Figure 2b).

One month later, fornix reconstruction with buccal mucosal grafting, intraoperative 0.02% Mitomycin C (MMC), and custom conformer placement was performed. Early postoperative conformer loss occurred, resulting in recurrent socket contracture and inability to fit a prosthesis at four months (Figure 2c).

Six months after the initial reconstruction, a second socket reconstruction was performed using dermis fat grafting, MMC, and placement of a custom four–vent hole conformer secured with fornix-deepening sutures and external intravenous tubing bolsters (Figure 2d). The socket subsequently maintained adequate fornix depth, seen at post operative week 1 (Figure 2e) and month 1 (Figure 2f), allowing increased potential for prosthesis placement.

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Our focused literature review identified a progression of strategies including graft-based reconstruction[1, 5], mechanical expanding devices[2], rigid or invasive fixation techniques[3], directional pressure conformers[4], mucosa-lined conformers[6], and more recently custom 3D-printed conformers[7], many of which require specialized resources or prolonged patient adherence (Table 1).

Conclusions: Here, we report a novel technique deliberately combining three elements that directly address the primary causes of reconstructive failure: tissue deficiency, loss of fornix depth, and postoperative re-contracture. By augmenting socket volume with grafted tissue, anchoring a custom four–vent hole conformer to provide fixed fornix expansion, and suppressing fibrosis with adjunctive Mitomycin C, our approach achieves a surgical trifecta not previously emphasized in socket reconstruction (Figure 3). This method offers an accessible, affordable, reproducible, and practical option for the management of refractory anophthalmic socket contracture.

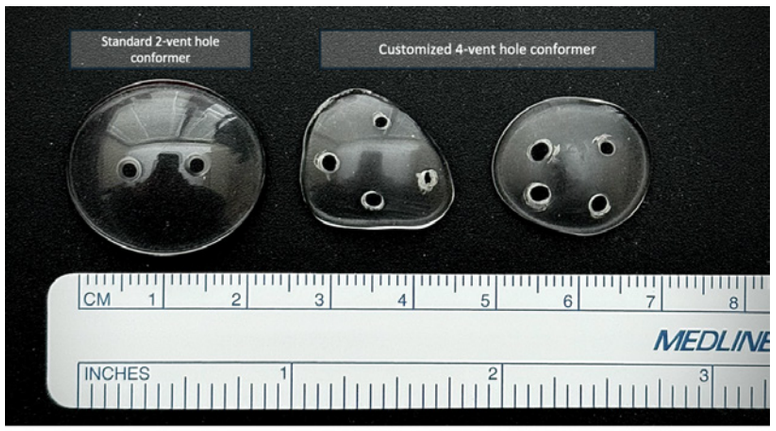

Figure 1: Multi- vent hole conformers; **(Left)** standard conformer, **(Center and Right)** 4-vent hole conformer, easily reproduced and customized by an Ocularist.

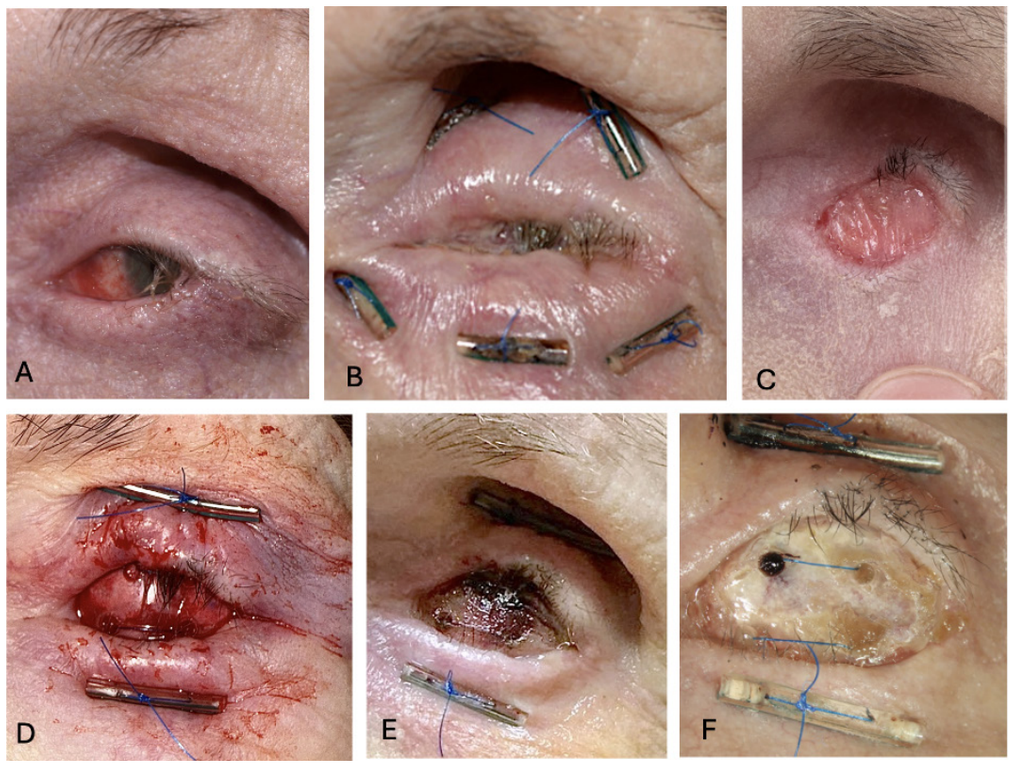

Figure 2: **(A)** Initial presentation of blind eye with exposure keratopathy, neurotrophic keratitis, and lateral tarsorrhaphy. **(B)** POD0 from left eye enucleation with 18mm SuPor© implant, lysis of symblepharon due to marked forniceal contracture, and circular ring of IV extension tubing with Prolene sutures to reform fornix. **(C)** POM4 with several months without custom conformer, s/p second socket reconstruction with buccal mucosal graft, MMC. **(D)** POD0 s/p dermis fat graft with 4-vent-hole fornix deepening sutures with IV tubing bolster and MMC. **(E)** POW1 and **(F)** POM1 from 4-vent hole conformer forniceal reconstruction.

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Figure 3:

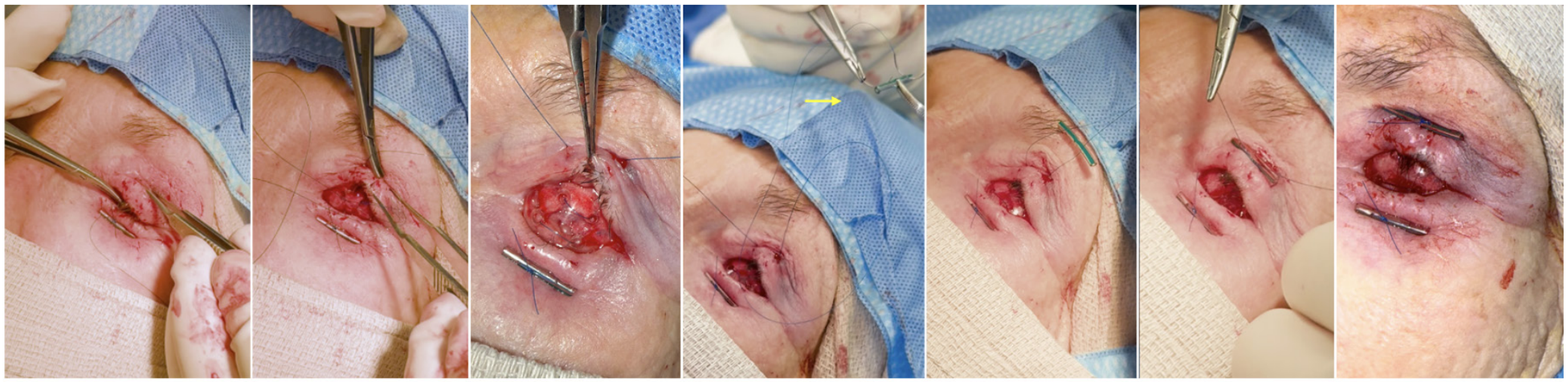

Figure 3: Surgical Technique using a 4-vent hole conformer for a fixed fornix expansion.

1. Once the dermis fat graft was secured in place and the socket expansion was completed, a specially fabricated four-hole conformer was inserted into the socket (approximately 10 mm in height and 21 mm in width).
2. A double-armed 5-0 Prolene suture was passed through the superior holes of the conformer, into the superior fornix and externalized, then tied over a bolster (IV extension tubing) on the upper eyelid.
3. Another double-armed 5-0 Prolene sutures were passed through the inferior holes of the conformer, into the inferior fornix and externalized, then tied over bolsters on the lower eyelid.
4. A residual palpebral opening of approximately 4 mm remained between the upper and lower eyelids.

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Reconstruction Strategy	Author (Year)	Study Type	Tissue Augmentation	Fixed Fornix Expansion	Antifibrotic Control	Key Limitation
Graft-based reconstruction	Lee et al.[1] (2002)	Case series	**Addressed** *Combined mucous membrane and hard palate mucosal grafts*	**Not addressed** *Conventional conformer*	**Not addressed**	High revision rate due to recurrent contracture
Mechanical expander	Lukáts[2] (2002)	Prospective case series	**Not addressed**	**Addressed** *Prolonged use of a smooth, non-vented silicone sphere as a space-occupying expander with temporary tarsorrhaphy*	**Not addressed**	Recurrence with expander loss, prolonged eyelid closure, and no antifibrotic control.
Rigid/invasive fixation	Mavrikakis et al.[3] (2006)	Prospective case series	**Addressed** *Buccal mucosa ± amniotic membrane*	**Addressed** *Silicone fixative injected through a standard conformer, stabilized around a horizontally placed K-wire from lateral orbital rim to posterior lacrimal crest; removed at 3 months*	**Not addressed**	Requires invasive transorbital hardware, no antifibrotic control.
Pressure conformer	Amornvit et al.[4] (2014)	Case report	**Not addressed**	**Addressed** *Continuous directional pressure conformer with acrylic rod for 6 weeks*	**Not addressed**	Single case; Lacks long-term retention strategy relying on patient compliance with gauze dressing . No tissue augmentation or antifibrotic control.
Graft-based reconstruction	Choi et al.[5] (2019)	Retrospective case series	**Addressed** *Hard palate–dermis fat composite graft*	**Not addressed** *Standard, non-fixed conformer*	**Addressed** *Intraoperative and serial post-operative 5-fluoruracil injections*	High surgical comorbidity; ¾ patients required additional fornix surgery.
Mucosa-wrapped conformer	Yang et al.[6] (2020)	Retrospective review	**Addressed** *Conjunctival sac plasty using full-thickness lower oral mucosa*	**Not Addressed** *Custom conformer wrapped in oral mucosa without fixation to fornices*	**Not addressed**	Risk of donor site (lip) deformity. No tissue augmentation or antifibrotic control.
Custom 3D-printed conformer	Groot et al.[7] (2022)	Retrospective case series	**Addressed** *Buccal mucosal graft with extensive scar release*	**Addressed** *Personalized 3D-printed conformer with fixation holes and horizontal extension ("lip") secured to tarsal plates and periosteum for ≥2 months*	**Not addressed**	Cost-intensive requiring specialized resources, and no antifibrotic control.

Table 1: Focused literature review of surgical strategies for refractory anophthalmic socket contracture, highlighting that prior techniques address isolated contributors to failure without consistently integrating tissue augmentation, fixed fornix expansion, and antifibrotic control.

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7:40–7:43 am

Association of Diabetes Mellitus with Response and Regression after Treatment with Teprotumumab For Thyroid Eye Disease

Marissa K. Shoji[1,2], Suzan Sargsyan[1], Alessia D'Urso[1], Tonya C. Lee[1], Bobby S. Korn[1], Don O. Kikkawa[1], Catherine Y. Liu[1]
[1]Shiley Eye Institute/UC San Diego, San Diego, California, United States, [2]Division of Oculofacial Plastic and Orbital Surgery, Bascom Palmer Eye Institute, Miami, Florida, United States

Introduction: Teprotumumab targets the IGF-1R/TSH-R signaling complex to reduce exophthalmos and inflammation in thyroid eye disease (TED). Diabetes mellitus (DM) is associated with more severe TED phenotypes and may affect treatment response through hyperglycemia-driven IGF-1R modulation, impaired fibroblast remodeling, and altered drug tolerance. This study investigates whether DM is associated with teprotumumab response and regression.

Methods: A retrospective cohort study was conducted on TED patients treated with teprotumumab at a tertiary center from 2020 to 2024. Exclusion criteria were 12 months duration to complete all infusions, and post-teprotumumab follow-up duration

Results: 188 orbits (94 patients) were included; 32 orbits (16 patients, 17.0%) had DM (mean baseline A1c 7.5±1.2, mean baseline glucose 140±48.4 mg/dL), and 14 (7.4%) had IDDM. Baseline exophthalmos (21.5±3.0 vs. 21.3±3.1 mm, p=0.60), CAS (3.8±1.5 vs. 3.6±1.8, p=0.44), infusion numbers, and side effects were similar between groups.

Over the course of teprotumumab, mean A1c increased by 0.9±0.8 in the DM group vs. 0.4±0.4 in non-DM group (p=0.14), and glucose rose by 36.6±42.4 versus 1.2±29.0 mg/dL (p=0.03), respectively. Immediate post-treatment reduction in CAS was significantly less in the DM group (-1.4±2.2 vs -2.9±1.8, p=0.002). Reduction in exophthalmos in DM vs. non-DM orbits was similar (-1.96±2.9 vs. -2.4±2.5 mm, p=0.49). Baseline A1c correlated significantly with immediate post-treatment CAS improvement (R=0.49, p=0.036), with lower A1c associated with greater CAS reduction, but no correlation of A1c and glucose with exophthalmos change were observed.

65 orbits demonstrated regression. Regression rates were not significantly different between DM and non-DM groups (25.0% vs. 36.5%, p=0.23) with a non-significant trend towards earlier observed regression in DM (11.9±7.6 vs. 14.7±10.0 months, p=0.44). However, DM orbits were significantly more likely to regress beyond baseline pre-treatment exophthalmos (85.7% vs. 38.5%, p=0.02) and trended toward greater exophthalmos increase at regression compared to immediate post-teprotumumab measurements (4.3±1.9 vs. 3.3±1.4 mm, p=0.09); this was primarily driven by orbits with IDDM, which showed significantly greater worsening of exophthalmos from post-treatment measurements at time of regression (5.7±2.3 mm, p=0.006). There were no significant associations between incidence of regression and quantitative baseline A1c or glucose levels.

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Conclusions: Teprotumumab remains effective for TED regardless of DM status, but CAS improvement was reduced in DM, suggesting potential immunomodulatory interactions. Regression rates were similar, though DM orbits more frequently regressed beyond baseline pre-treatment exophthalmos and insulin-dependent DM orbits demonstrated significantly greater exophthalmos increase at regression. To our knowledge, this is the first study to stratify teprotumumab outcomes by DM phenotype and to quantify glycemic impact.

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7:43–7:46 am

Oculocardiac Reflex and Asystole during Orbital Exenteration: A Case Report and Review of Literature

Kimberly Seamon[1], Bohan Kim[1], Tracy Lu[2], Agni Kakouri[1], Lily Huang[3], Timothy McCulley[1], Ying Chen[1]
[1]Ruiz Department of Ophthalmology & Visual Sciences, McGovern Medical School, University of Texas Health Science Center at Houston, Houston, Texas, United States, [2]Las Vegas, Nevada, United States, [3]Philadelphia, Pennsylvania, United States

Introduction: The oculocardiac reflex (OCR) is a trigeminovagal reflex that can cause significant cardiac disturbances during ocular manipulation. While most commonly encountered in the setting of orbital fracture with acutely entrapped extraocular muscles or during strabismus surgery, severe manifestations such as asystole are rare in non-strabismus orbital procedures. This report describes a unique case of prolonged asystole due to OCR during a routine orbital exenteration.

Methods: A case report of a 78-year-old female undergoing partial lid-sparing orbital exenteration for a poorly differentiated sweat gland carcinoma who developed prolonged asystole is presented. Intraoperative events, management, and postoperative outcomes were reviewed. A review of the literature on severe oculocardiac reflex manifestations is also discussed.

Results: During clamping of the orbital contents at the orbital apex, the patient developed prolonged asystole. Immediate release of the hemostat resulted in spontaneous return of sinus rhythm within 20 seconds without pharmacologic intervention. No further episodes of OCR or hemodynamic instability occurred after modification of the surgical technique. The patient recovered uneventfully and was discharged on postoperative day one. Review of the literature identified only a limited number of reported cases of asystole due to the oculocardiac reflex outside of strabismus surgery, with previously described cases occurring during orbital fracture repair, midface trauma repair, enucleation, extraocular cysticercosis excision, Mohs surgery near the orbital apex, and socket manipulation. No prior cases associated with orbital exenteration were identified.

Conclusions: This case demonstrates that OCR can result in prolonged asystole during orbital exenteration, even in patients without known cardiac disease. Awareness of this risk, prompt cessation of the triggering stimulus, close coordination with anesthesia, and consideration of alternative surgical techniques are critical to minimizing potentially life-threatening complications.

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7:46–7:49 am

The Effect of Tear Trough Implants on MRD2

Ryan Gabbard[1], Alexandra Van Brummen[1], Matthew Zhang[1], A.J. Amadi[1,2]
[1]Oculoplastic and Reconstructive Surgery, University of Washington, Seattle, Washington, United States, [2]Amadi Aesthetics, Seattle, Washington, United States

Introduction: An anatomically and aesthetically appropriate lower eyelid position is one that is apposed to the globe and rests at the level of the of the inferior corneal limbus at 6 o'clock. One potential complication of lower eyelid blepharoplasty is lower eyelid retraction which results in negative cosmetic and functional effects. Tear trough deformities are a common challenge encountered in facial plastic surgery. Suborbital midfacial implants have been designed to correct these deformities. Additionally, tear trough implants have been theorized to improve lower eyelid position.

Previous studies have investigated the effects of transconjunctival blepharoplasty (TCB) on marginal reflex distance 2 (MRD2). Goldberg et al. performed a prospective study and demonstrated no improvement in lower eyelid position.[1] Rosenberg et al. examined lower eyelid position in 171 patients following eyelid retractor release and demonstrated a decrease in MRD2 post-operatively, although it was not statistically significant.[2] More recently, Segal et al. performed the only study to date to demonstrate a statistically significant decrease in MRD2 which involved 15 lower eyelids with TCB as a stand-alone procedure.[3]

The objective of this study was to determine the impact of tear trough implants performed in combination with TCB on lower eyelid position assessed by measuring MRD2. This is the first study to the authors' knowledge analyzing the effects of MRD2 with tear trough implants.

Methods: This is a retrospective study of 28 patients that underwent combined transconjunctival lower blepharoplasty with tear trough implant by a single surgeon (AA) from June 2019 to September 2024. Pre- and post-operative photographs were analyzed in Photoshop using a previously validated equation[4] to calculate MRD2.

Results: MRD2 were compared pre- and post-operatively, and the difference reached significance by two-tailed t test comparison (p-value < 0.05). The average decreases in MRD2 were 0.86 mm and 0.49 mm for OD and OS respectively.

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Conclusions: This study demonstrates that tear trough implants in combination with TCB have a positive impact on lower eyelid position by decreasing MRD2 and inferior scleral show. Although this technique is not primarily performed to improve lower eyelid position it demonstrates improved cosmetic outcomes in patients undergoing transconjunctival lower eyelid blepharoplasty combined with tear trough implants.

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7:49–7:52 am

Repurposing Resected Blepharoplasty Fat for Autologous Facial Fat Transfer

Kendall Goodyear[1,2], Makayla McCoskey[1,2], Nicole Duncan[2], Tanuj Nakra[1,2]
[1]TOC Eye and Face, Austin, Texas, United States, [2]Mitchel and Shannon Wong Eye Institute, Dell Medical School at the University of Texas at Austin, Austin, Texas, United States

Introduction: Autologous fat transfer (AFT) is a well-established technique in oculoplastics and facial rejuvenation for volume restoration. Though several studies have shown the benefit of facial AFT, most do so with the abdomen, thigh, or hips serving as the harvest site.[1,2] Few studies have explored the use of resected blepharoplasty fat—from either the upper or lower eyelids—as a graft source.[3] We describe a surgical technique utilizing resected blepharoplasty fat for facial AFT, allowing for effective volume augmentation without requiring a separate harvest site.

Methods: This is a descriptive case series and surgical technique. Resected fat was collected without the use of cautery from the upper and/or lower eyelids during routine blepharoplasty. The fat was minced using iris scissors with a small volume of sterile saline until a uniform consistency was achieved, and then transferred into a 3cc syringe and injected transcutaneously into targeted facial areas using a 14-gauge angiocatheter. Patients were followed postoperatively and outcomes were evaluated with photography, patient-reported satisfaction, and complication monitoring.

Results: Resected fat was collected from the upper and/or lower eyelids during routine blepharoplasty in 23 patients (21 female, 2 male; mean age 61 years). The most common procedure was quad blepharoplasty (85%), with adjunctive procedures including brow lift, MMCR, and lower face and neck rejuvenation. Minced resected blepharoplasty fat was injected into targeted facial areas including the midface (82%), pre-jowl sulcus (14%), and angle of the mandible (5%). Fat volume was variably recorded, with an average volume of 6.5cc total. The average follow-up period was 4.3 months. All patients demonstrated visible aesthetic improvement in the treated areas. There were no cases of fat necrosis, nodularity, or significant asymmetry. No cases required secondary operations or revisions for the grafted fat. Patient satisfaction was high. Representative pre- and postoperative images are shown in Figure 2.

Conclusions: Resected blepharoplasty fat can be preserved, minced, and serve as a viable source for facial AFT, offering similar volume restoration benefits as traditional donor fat while eliminating the need for a secondary harvest site. This technique provides an efficient, minimally invasive approach to enhance facial volume and symmetry with favorable aesthetic outcomes and minimal morbidity.

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Figure 1

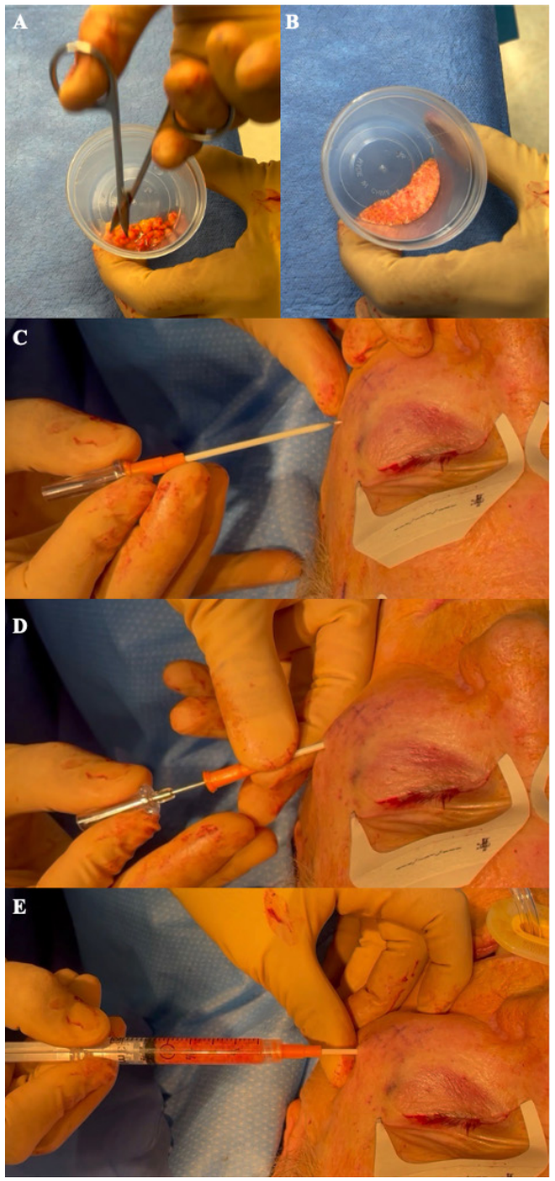
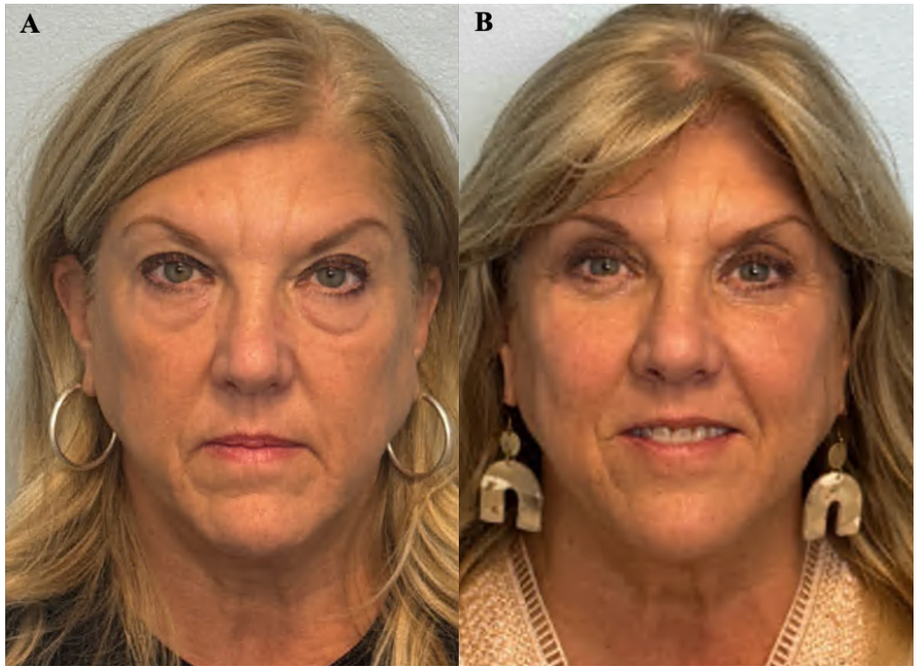


Figure 2



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8:03–8:08 am

Insurance Acceptance and Transparency Among ASOPRS Members: A Cross-Sectional Review

Vikram Durairaj[1,2], Nuha Arefin[3], Remigio Flor[1,2], Tanuj Nakra[1,4], Kendall Goodyear[2,1]
[1]TOC Eye and Face, Austin, Texas, United States, [2]Mitchel and Shannon Wong Eye Institute, Dell Medical School at the University of Texas at Austin, Austin, Texas, United States, [3]Dell Medical School at the University of Texas at Austin, Austin, Texas, United States, [4]Mitchel and Shannon Wong Eye Institute, Dell Medical School at the University of Texas at Austin, Austin, United States

Introduction: Among outpatient specialists, acceptance of insurance has declined in the past two decades.[1] Private practices have been shown to be largely responsible for declining acceptance of Medicare patients.[2,3] Limited transparency regarding insurance participation may impede patient access to specialty care. We aimed to evaluate the patterns of insurance acceptance among members of the American Society of Ophthalmic Plastic and Reconstructive Surgery (ASOPRS) by assessing the availability and clarity of insurance-related information on practice websites.

Methods: The ASOPRS website (www.oculofacialsociety.org) was queried using the "Find a Surgeon" tool with the location filter set to "United States," yielding 694 surgeons. After removal of duplicates, 689 unique surgeons remained. A standardized google search was then performed for each surgeon using the query *"First Name Last Name ASOPRS"* to identify each practice website. Publicly available website content was reviewed to determine insurance acceptance status (accepts insurance, does not accept insurance, or unclear). For surgeons indicating insurance acceptance, websites were further evaluated for explicit listing of accepted insurance carriers as well as Medicare and Medicaid. Practice characteristics, including practice type and geographic region, were also recorded. Data were collected in a standardized spreadsheet, and descriptive statistics were used for analysis.

Results: Of 689 unique American Society of Ophthalmic Plastic and Reconstructive Surgery (ASOPRS) surgeons identified, 94.3% (n = 650) had an identifiable practice website. Among surgeons with a practice website, several practice types were noted as shown in Table 1: 45.4% (n = 296) group private practice, 25.2% (n = 164) solo private practice, 27.7% (n = 180) academic practice, and 1.5% (n = 10) other practice settings (e.g., HMO or military). Geographic practice distribution noted 24.8% (n=161) surgeons in the Northeast, 18.8% (n=122) in the Midwest, 27.8% (n=181) in the South, and 28.6% (n=186) in the West. Regarding insurance coverage, 84.3% (n = 548)

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indicated insurance acceptance, 3.7% (n = 24) did not accept insurance, and 12.0% (n = 78) were unclear. Of those indicating insurance acceptance, 55.8% (n = 306) explicitly listed accepted insurance carriers on their website and the remainder did not (Table 2). Amongst practices accepting insurance, 62.2% (n = 336) indicated acceptance of Medicare, 32.6% (n=176) were unclear, and 5.2% (n = 28) reported not accepting Medicare. Amongst practices accepting Medicaid or MediCal, 46.7% (n = 252) indicated acceptance, 38.5% (n = 208) were unclear, and 14.8% (n = 80) did not accept Medicaid or MediCal.

Conclusions: Most ASOPRS surgeons (84.3%) accept insurance according to their practice websites, though 3.7% explicitly do not and another 12% provide no clear information. However, transparency about which specific insurance plans are accepted—including Medicare and Medicaid participation—is inconsistent and often unclear. This lack of readily available insurance information on practice websites may create unnecessary barriers for patients seeking functional oculoplastic care. Improved standardization and clarity of insurance-related website content could enhance patient access, reduce administrative burden, and better align with healthcare transparency initiatives.

Table 1

Accepts Insurance	
Yes	84.3% (n=548)
No	3.7% (n=24)
Unclear	12.0% (n=78)
Practice Type	
Solo Private Practice	25.2% (n=164)
Group Private Practice	45.4% (n=296)
Academic (Hospital	27.7% (n=180)
Other (HMO, Military)	1.5% (n=10)
Geographic Location	
Northeast	24.8% (n=161)
Midwest	18.8% (n=122)
South	27.8% (n=181)
West	28.6% (n=186)

Table 2

Accepted Insurances Listed on site	
Yes	55.8% (n=306)
No	44.2% (n=242)
Accepts Medicare	
Yes	62.2% (n=336)
No	5.2% (n=28)
Unclear	32.6% (n=176)
Accepts Medicaid	
Yes	46.7% (n=252)
No	14.8% (n=80)
Unclear	38.5% (n=208)

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8:08–8:13 am

Financial Return on Investment of Fellowship Training in Ophthalmology: A Multicenter Study

Daniel Azzam[1], Abdullah Mamdani[2], Leo Meller[3], Jenny Torres[4], Jeremiah Tao[1], Amar Joshi[2]
[1]Division of Oculofacial Plastic and Orbital Surgery, Gavin Herbert Eye Institute, University of California Irvine, Irvine, California, United States, [2]Department of Ophthalmology and Visual Sciences, University of New Mexico Health Sciences Center, Albuquerque, New Mexico, United States, [3]Shiley Eye Institute, University of California San Diego, San Diego, California, United States, [4]Massachusetts Eye and Ear, Massachusetts General Hospital, Boston, Massachusetts, United States

Introduction: A common consideration among ophthalmology trainees is whether fellowship is financially justifiable given the 1-2 year income loss compared with comprehensive ophthalmology. While compensation may not be the sole determinant of career decisions, it likely is a factor when assessing value of subspecialization and impact on future workforce.

We report financial return on investment (ROI) of ophthalmology fellowships by subspecialty and gender. This analysis may highlight opportunities for policymakers to promote equitable and diverse subspecialty training.

Methods: A cross-sectional, retrospective multicenter study evaluated 2023 salaries of full-time academic ophthalmologists at five University of California (UC) centers. Data were paired to training information and gender across eight subspecialties versus comprehensive ophthalmology over a working lifetime. Financial analysis mirrored previous methodologies.[1,2] Outcomes included net present value (NPV), break-even point, and gender comparisons. Comprehensive ophthalmology was set at NPV=0 as the reference.

Results: Among 168 academic ophthalmologists, oculofacial plastic surgery (OPS) fellowship offered the highest compensation $525,905 (Figure 1A) and highest financial return (NPV +$2.38M) relative to comprehensive (Figure 1B), followed by cornea (NPV +$2.15M), glaucoma (NPV +$2.15M), and retina (NPV +$1.06M). Neuro-ophthalmology (NPV -$1.13M), uveitis (NPV -$1.30M), and ocular pathology (NPV -$1.42M) yielded negative returns.

Men had higher average compensation than women ($481k vs $380k, difference $101k [95% CI $25K - $176K], *P*=.009) (Figure 1A). Men yielded greater NPV from subspecialization than women (+$1.42M vs +$506k, difference $918k [$843k - $994k], *P*<.001) (Figure 1C). Figure 1D portrays subspecialization lifetime future value.

Break-even points were cornea and glaucoma 3 years post-residency, OPS 6 years, and retina and pediatrics 9 years (Figure 2). Neuro-ophthalmology, uveitis, and pathology did not achieve financial parity over a typical career. Salaries differed by academic rank, with chairs earning the highest (*P*<.001).

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Conclusions: This study reports a financial analysis addressing ophthalmic subspecialty ROIs, break-even years, and gender comparisons. OPS offered highest ROI, followed by cornea and glaucoma. Retina, multiple fellowships, and pediatrics earned slightly more than comprehensive but require 9-10 years to recoup lost attending income incurred during fellowship. Neuro-ophthalmology, uveitis, and pathology never recouped this loss. Women frequently earned less than men, except retina and neuro-ophthalmology. These findings may inform targeted interventions to address ophthalmic subspecialty shortages and gender inequities.

Figure 1

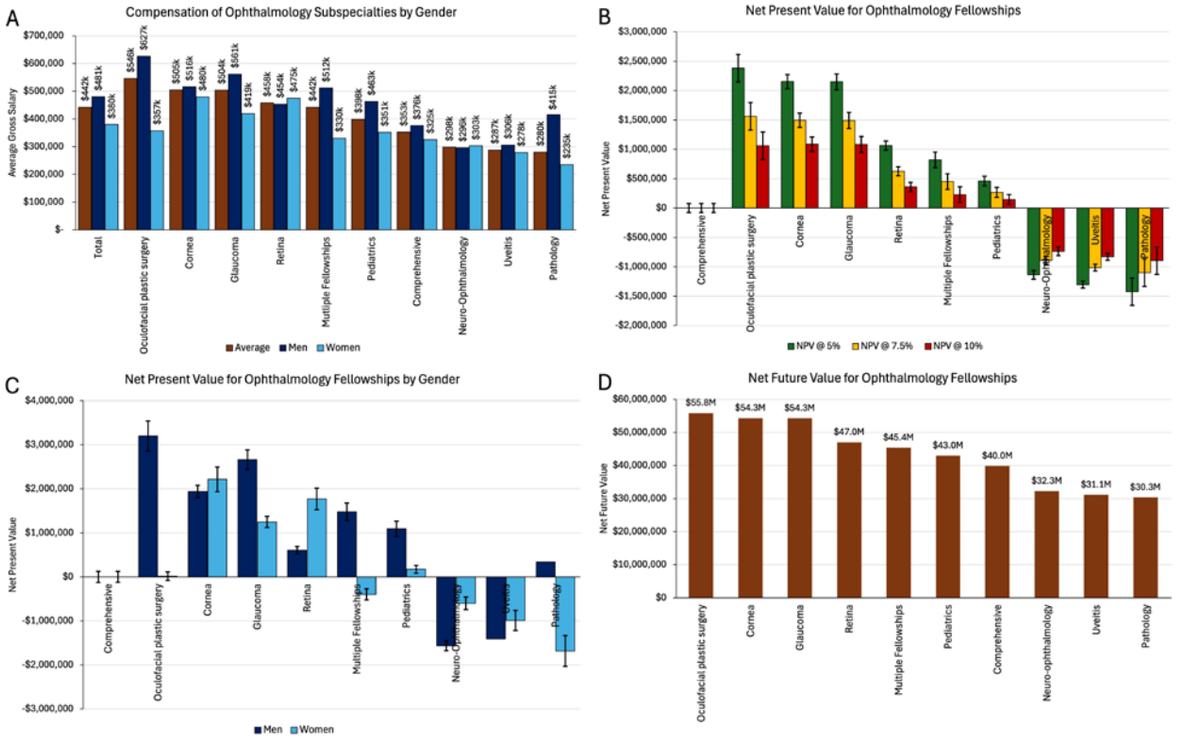
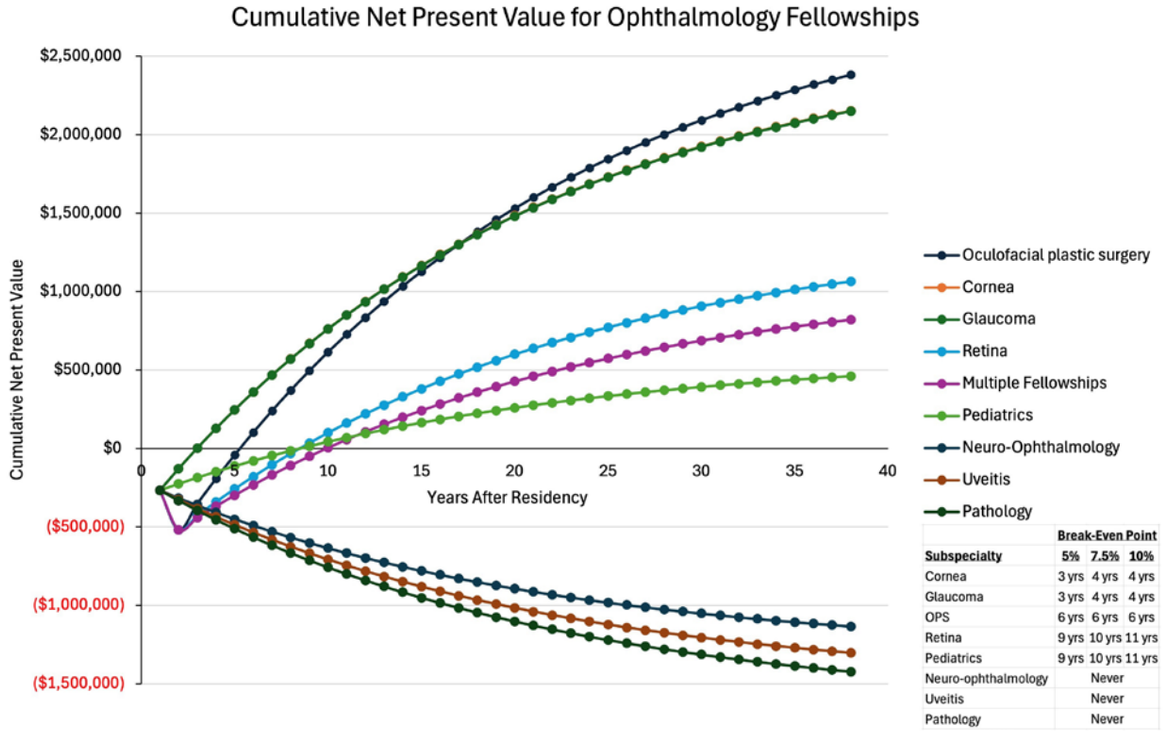


Figure 2



	Break-Even Point		
Subspecialty	**5%**	**7.5%**	**10%**
Cornea	3 yrs	4 yrs	4 yrs
Glaucoma	3 yrs	4 yrs	4 yrs
OPS	6 yrs	6 yrs	6 yrs
Retina	9 yrs	10 yrs	11 yrs
Pediatrics	9 yrs	10 yrs	11 yrs
Neuro-ophthalmology		Never	
Uveitis		Never	
Pathology		Never	

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8:13–8:18 am

Lights, Camera, Patient Action: Leveraging Educational Video to Improve Clinic Flow and Surgical Conversion

David Samimi[1,2]
[1]Eyesthetica, Los Angeles, California, United States, [2]Roski Eye Institute, University of Southern California, Los Angeles, California, United States

Introduction: Patient education is central to informed consent, expectation management, and surgical decision-making in oculofacial plastic surgery. In traditional consultation models, physicians repeatedly address foundational topics such as procedural goals, recovery timelines, and common perioperative concerns. This repetition consumes valuable clinic time and can limit the depth and efficiency of physician–patient interaction.[1]

Digital educational media provide an opportunity to deliver consistent, visual information that patients can access independently and revisit as needed. Prior work has shown that multimodal education and improved clinician–patient communication enhance patient understanding, engagement, and decision-making.[2] However, few structured systems integrate educational video across the pre-visit, in-clinic, and postoperative phases in a way that reduces repetitive counseling, addresses patient anxiety, and supports surgical decision-making without requiring additional clinic space, equipment, or staffing resources.

This study describes the implementation of a layered educational video system designed to improve clinic efficiency, reduce repetitive physician counseling, address common patient concerns that inhibit surgical booking, and enhance surgical conversion while preserving high-value physician–patient interaction.

Methods: This project was conducted as a prospective quality-improvement initiative. Short educational videos (2–8 minutes) were recorded and organized into topic-based modules addressing facial aging, surgical philosophy, procedure-specific education, recovery expectations, perioperative logistics, and commonly reported sources of patient anxiety. Video-based education was selected to allow patients to review information independently, both within and outside the clinic environment.

Educational content was delivered through a multi-stage workflow. New cosmetic consultation patients received an automated email one week prior to their visit containing a welcome video, scheduling information, general service categories with pricing ranges, and links to educational videos. During clinic visits, physicians used secure real-time messaging from a mobile physician communication

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application on their personal device to send targeted video links directly to patients. Messages originated from the practice phone number, preserving physician privacy and not revealing the provider's personal cell phone number. (Figure 1)

Following the initial assessment, patients viewed selected videos on their own smartphones while the physician continued seeing other patients, eliminating the need for dedicated video hardware, monitors, or additional clinic space. Postoperative instruction videos were sent electronically on or just before the day of surgery. Surgery coordinators used standardized email templates with embedded video links to reinforce education, address common questions, and support surgical decision-making.

Results: The implemented system produced a scalable, multi-layered educational framework centered on recorded topic-based videos accessible before, during, and after the clinic visit. (Figure 2) Patients arrived better informed and demonstrated improved understanding of procedures, recovery expectations, and perioperative logistics. Consultations progressed more efficiently, with fewer repetitive baseline questions and more focused, higher-level discussions.

Secure real-time messaging allowed rapid delivery of tailored educational content without interrupting physician workflow. Patients frequently reviewed videos at home with spouses or other key decision-makers, helping to address anxiety-related concerns and overcome common barriers to surgical booking. Surgery coordinators reported improved efficiency and effectiveness in patient counseling and conversion support.

Conclusions: A structured educational video system integrated across the patient care continuum can reduce repetitive physician counseling, improve clinic flow, and enhance patient preparedness without additional infrastructure. This low-cost, scalable approach supports informed decision-making and surgical conversion while allowing physicians to engage patients in a more individualized and meaningful clinical relationship.

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Figure 1

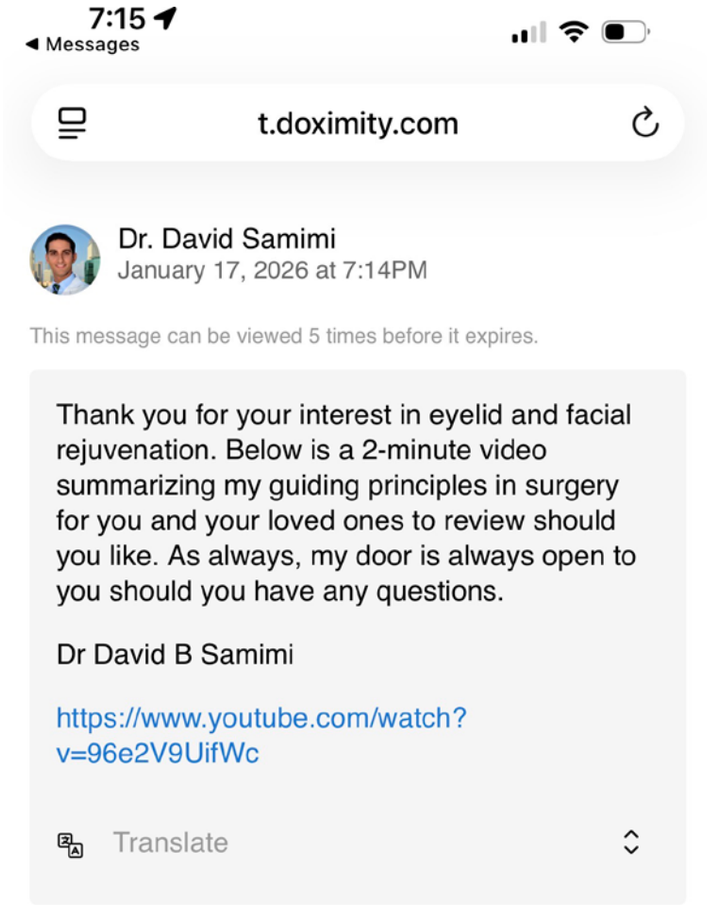
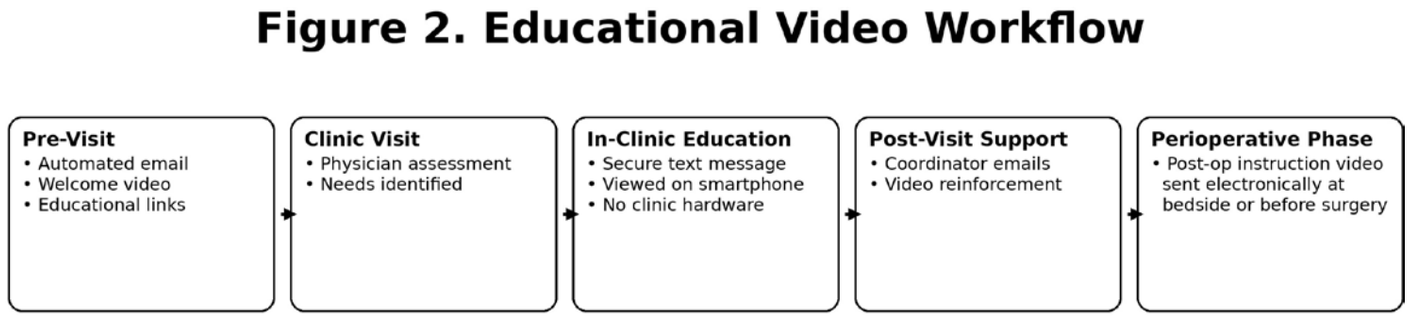


Figure 2



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8:18–8:23 am

American Society of Ophthalmic Plastic and Reconstructive Surgery Fellowship Selection Criteria Revisited a Decade Later: A Survey of Fellows' Current Preferences

Kendall Goodyear[1,2], Makayla McCoskey[1], Nicole Duncan[2], Tanuj Nakra[1,2], Vikram Durairaj[1,2]
[1]TOC Eye and Face, Austin, Texas, United States, [2]Mitchel and Shannon Wong Eye Institute, Dell Medical School at the University of Texas at Austin, Austin, Texas, United States

Introduction: Over a decade ago, fellows-in-training with the American Society of Ophthalmic Plastic and Reconstructive Surgery (ASOPRS) were surveyed to determine which characteristics they valued most when selecting a fellowship program.[1] To investigate whether these priorities have evolved over time, we repeated the same survey with a contemporary cohort.

Methods: A 14-question anonymous survey, originally used in a study in 2011, was re-administered via Qualtrics to the ASOPRS fellowship classes of 2024 to 2027. The survey evaluated fellow demographics, the interview process, and qualities fellows seek in fellowship training programs. A Likert scale (1: not important, 9: very important) was used to rate different qualities, and summary statistics are reported as means ± standard deviations.

Results: Of 95 surveys distributed, 67 responses were received (71% response rate). Respondents were predominantly female (56.7%), a notable increase from 25.4% in 2011. The highest-rated qualities, in descending order of mean importance, were: Variety of surgical procedures (8.5 ± 1.2), volume of procedures/surgeries (8.4 ± 1.2), personality of the program director (8.3 ± 1.2), interview (8.0 ± 1.5), and emphasis on type of surgeries performed (8.0 ± 1.4) (Table 1). The relative order of these top five qualities remained unchanged from the 2011 survey (Figure 1). The lowest-rated factors were proximity to family (4.9±2.8), presence of a county hospital (4.8±2.3), presence of a Veteran's Affair Hospital (4.6±2.4), and didactics (4.6±2.0). This was consistent with the 2011 survey. Notably, benefits rose in importance, climbing from last of 24 categories in 2011, to 15th (5.9±2.1) in this study. The only other characteristics that saw a relative change in ranking of 4 or more spots was fellow call responsibility (6.6±2.0), ascending to 13th in this survey from 19th previously and research opportunities (5.7±2.0), descending from 14th to 18th. All other characteristic rankings remained within 3 positions of the original study.

Conclusions: ASOPRS fellowship applicants continue to prioritize surgical experience, the program director's personality, and the interview process most highly when ranking programs. Compared to a decade ago, there is greater emphasis on call schedule and benefits, while assigning less weight to research opportunities. These shifting priorities provide insight into evolving trainee expectations and may help shape future fellowship program structures.

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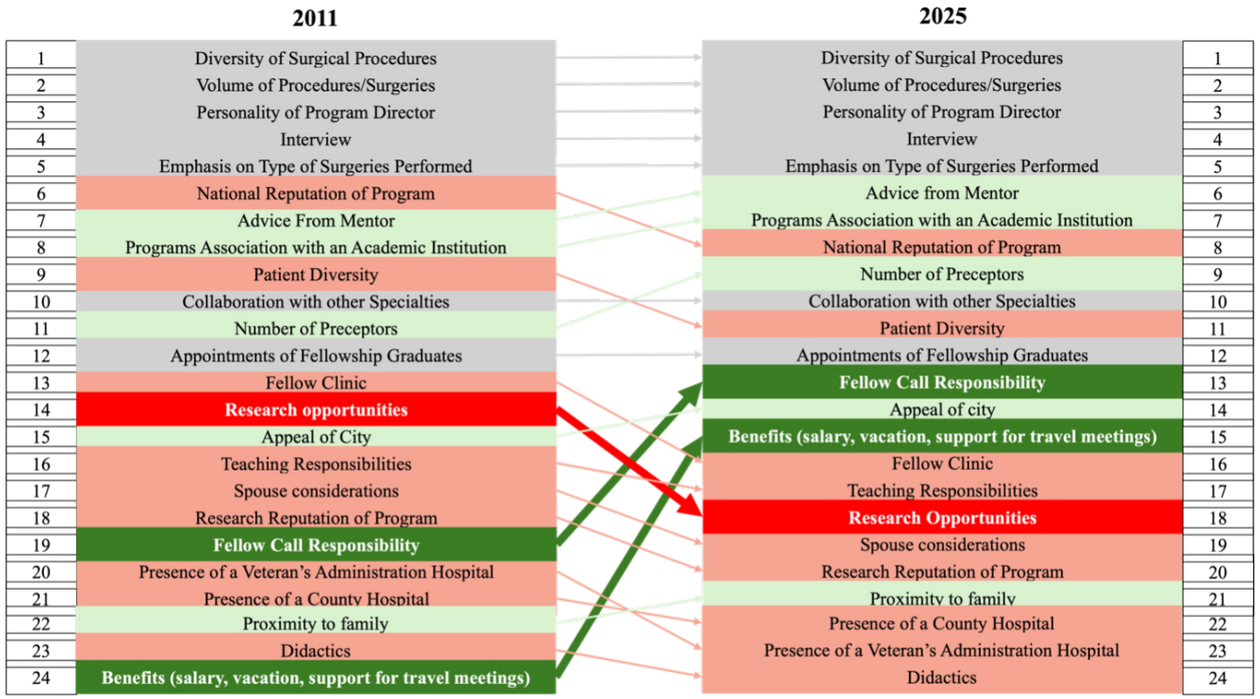
Table 1. Program qualities and overall responses for 2011 and 2025

Characteristic [Rank (Overall Mean for that Year)]	2011	2025	Δ Rank
Variety of Surgical Procedures	1 (8.6)	1 (8.5)	0
Volume of Procedures/Surgeries	2 (8.6)	2 (8.4)	0
Personality of the Program Director	3 (8.2)	3 (8.3)	0
Interview	4 (7.7)	4 (8.0)	0
Emphasis on Type of Surgeries Performed	5 (7.5)	5 (8.0)	0
Advice from Mentor	7 (7.2)	6 (7.7)	+1
Programs Association with an Academic Institution	8 (7.1)	7 (7.6)	+1
National Reputation of Program	6 (7.4)	8 (7.5)	-2
Number of Preceptors	11 (6.8)	9 (7.3)	+2
Collaboration with other Specialties	10 (6.9)	10 (7.1)	0
Patient Diversity	9 (7.0)	11 (6.9)	-2
Appointments of Fellowship Graduates	12 (6.4)	12 (6.9)	0
Fellow Call Responsibility	19 (5.4)	13 (6.6)	+6
Appeal of city	15 (5.8)	14 (6.5)	+1
Benefits (salary, vacation, support for travel to meetings)	24 (4.4)	15 (5.9)	+9
Fellow Clinic	13 (6.3)	16 (5.8)	-3
Teaching Responsibilities	16 (5.8)	17 (5.8)	-1
Research Opportunities	14 (5.8)	18 (5.6)	-4
Spouse considerations	17 (5.8)	19 (5.6)	-2
Research Reputation of Program	18 (5.5)	20 (5.3)	-2
Proximity to Family	22 (4.8)	21 (4.8)	+1
Presence of a County Hospital	21 (5.1)	22 (4.8)	-1
Presence of a Veteran's Affair Hospital	20 (5.3)	23 (4.6)	-3
Didactics	23 (4.7)	24 (4.6)	-1

Table 2



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8:23–8:28 am

How Can I Defraud Thee? Let Me Count the Ways

Kathryn Winkler[1,2], Maya Goyal[3]
[1]Chicagoland Oculoplastics Consultants, PLLC, Des Plaines, Illinois, United States, [2]Ophthalmology, Oculoplastics Division, Rush University Medical Center, Chicago, Illinois, United States, [3]School of Medicine, Georgetown University, Washington, District of Columbia, United States

Introduction: Financial integrity is crucial for medical practices to deliver safe and continuous patient care, yet fraud and embezzlement remain under-recognized threats. An estimated tens of billions of dollars is lost annually to health care fraud.[1] Fraud in medical practices takes many forms, and is facilitated by the complexity of the healthcare system, making financial oversight challenging.[2] While prior studies have focused largely on large-scale healthcare fraud, less is known about fraud in physician-owned private practices.

Private practices are particularly vulnerable to fraud due to small administrative teams, limited financial oversight, and competing clinical demands on physicians. Surgical subspecialties such as ophthalmology, particularly oculofacial plastic surgery, rely on multiple revenue streams, delegated administrative management, and complex billing structures, increasing susceptibility to internal fraud. Underreporting has left the true scope of fraud in oculofacial practices poorly defined.

This study aims to assess the prevalence, characteristics, and financial impact of fraud and embezzlement among oculofacial plastic surgeons in private practice, with the goal of increasing physician awareness and informing strategies to protect practices and sustain high-quality patient care.

Methods: A cross-sectional, anonymous, electronic survey was distributed to ASOPRS members. The survey assessed private practice ownership status and self-reported experience with fraud or embezzlement.

Results: A total of 60 ASOPRS members responded to the survey, 53 (88.3%) of whom reported ownership of a private practice. Among these 53 owners, 26 (49%) have experienced fraud or embezzlement, 11 of which experiencing more than one incidence of fraud.

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The majority of incidences were discovered in less than 6 months (53.8%). The most frequently reported mechanisms of fraud included cash/check theft (19), followed by payroll fraud (10), credit card misuse (8), electronic transfer (4), and fake vendors (1). Fraud was most often perpetrated by the office manager (12), followed by front desk or clinical staff (9), and billing staff (6). Estimated financial losses were mostly under $10,000 and most commonly discovered through internal review (65%). 15 practices pursued legal action. Following discovery, the majority respondents reported implementing increased owner oversight, while others implemented new accounting systems, separation of financial duties, and regular audits.

Conclusions: Nearly half of surveyed oculofacial plastic surgeons in private practice reported experiences of fraud or embezzlement. Most incidents involved trusted administrative personnel and were detected through internal review. Although financial losses were relatively modest, the time and resources spent investigating and recovering likely posed further financial strain and diverted physician attention away from patient care.

Strengthening financial oversight and implementing preventative measures may reduce future fraud risk and protect the integrity of oculofacial private practices. Segregating financial duties, performing regular or unannounced audits of finances and inventory, enhancing operational security, and keeping an elevated level of suspicion are some of the checks and balances that can be instituted in order to diminish or discourage fraud. This study is limited by self-reported survey data and potential response bias; however, improving financial integrity in private practices remains essential to maintaining administrative stability and delivering high-quality patient care.

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8:41-8:53 am

Bilateral Lower Lid Blepharoplasty Pearls

Michael S. McCracken

8:53-9:05 am

Energy Based Devices

Yash Vaishnav

9:05-9:17 am

Injection Pearls

John P. Fezza

11:01–11:06 am

Intra-Arterial Thrombolysis with Hyaluronidase in Emergent Management of Orbital Compromise after Hyaluronic Acid Filler Vascular Occlusion

Sandy Zhang-Nunes[1,2], Shaili Davuluru[2], Brandon Wong[2], Corey Karp[2], Claire Olivas[2], Kasra Khatibi[3]
[1]Ophthalmology, Southern California Permanente Medical Group, Los Angeles, California, United States, [2]Keck School of Medicine of University of Southern California, Los Angeles, California, United States, [3]Department of Neurology, Keck School of Medicine of University of Southern California, Los Angeles, California, United States

Introduction: In recent years, hyaluronic acid (HA) filler use has increased dramatically, along with an increase in rare but devastating ischemic complications such as vision loss. HA fillers can produce an embolism to the retinal and ophthalmic arteries causing vision-threatening retinal ischemia. Studies have demonstrated that retinal infarction can occur within 12-15 minutes and can lead to irreversible vision loss retinal damage irreversible vision if not addressed in a timely manner after the ischemic event[1,2]. This highlights a need for reliable immediate dissolution and treatment of filler occlusion.

Intra-arterial filler dissolution offers a fast, effective targeted therapy to reperfuse the occluded vessels and possibly restore vision that requires further study. We hypothesize that early IAT with hyaluronidase and additional thrombolysis can lead to better visual outcomes than later treatment of filler-related vascular occlusions. This study seeks to evaluate efficacy of intra-arterial hyaluronidase (HYAL) therapy for emergent management of hyaluronic acid (HA) filler-related vision loss and other ischemic complications.

Methods: A meta-analysis was conducted on existing literature on ntra-arterial therapy (IAT) with HYAL for HA filler-related vision loss. PubMed and Google Scholar were used to identify these articles. Demographics, IAT protocol (HYAL concentration, thrombolytics, time to IAT, occluded artery, recanalization outcome), adjuvant therapy, and clinical features pre/post-IAT were compared.

Results: 190 eligible cases were reviewed from the literature. Successful arterial recanalization (either complete or partial) was accomplished in 94.1% of cases, with 88.27% requiring one IAT and 12.43% required a second IAT. Of those with recanalization, vision improvement was noted in 38.2% of cases. Cases with intact light perception post-filler injection had a higher rate of vision improvement after IAT than those with no light perception (62.8% vs 38.3%, respectively). VA improvement was slightly more frequent

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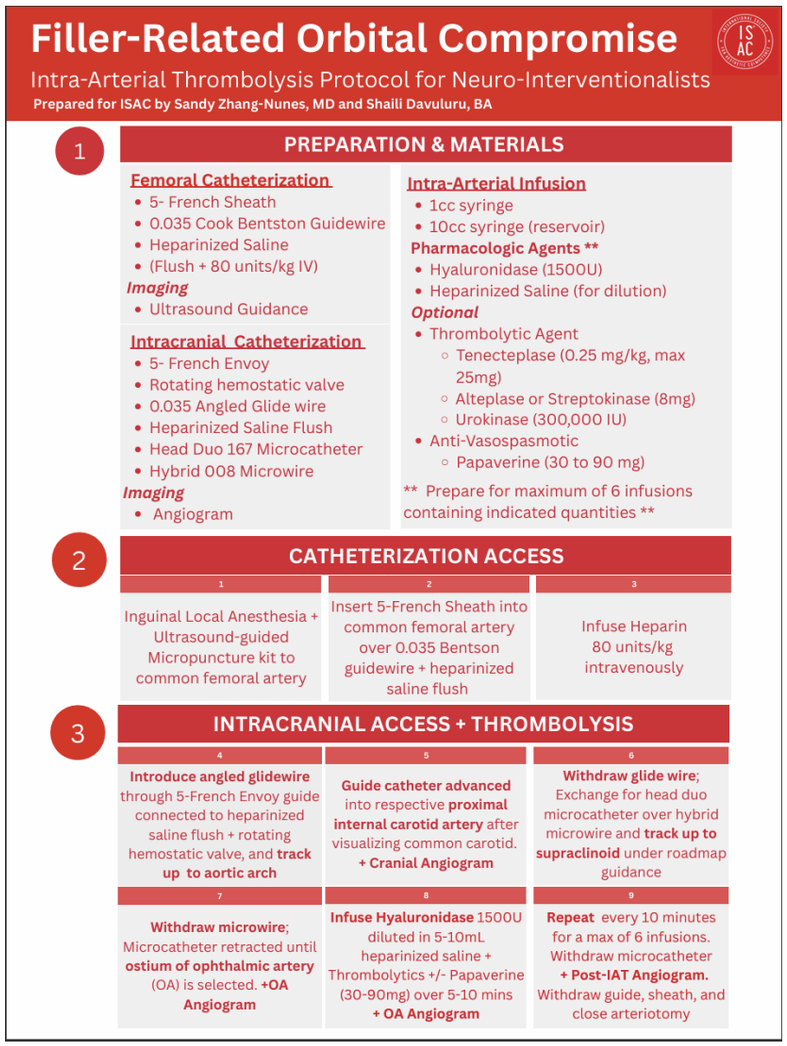
following IAT with HYAL + thrombolytics (e.g urokinase, streptokinase, and tPA) than HYAL alone (64.5% vs. 33.3%). Skin necrosis, ocular motility, and ptosis resolved in 100% of cases. Adverse events of intracranial hemorrhage or small acute infarct occurred in three cases.

Conclusions: Timely intra-arterial HYAL with thrombolytics can effectively recanalize filler-occluded arteries and potentially reverse vision loss when performed before permanent damage occurs. Preserved light perception at presentation of occlusion is a key indicator of visual recovery after IAT, further highlighting the importance of prompt treatment. We aim to establish a standardized interventional protocol involving IAT that can be implemented at various institutions to adequately respond during HA filler-related vascular occlusions.

Figure 1



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11:06–11:11 am

The Modified Croton Oil-Phenol ("Hetter") Peel: A Twenty-Five Year Perspective

Lawrence Kass
St Petersburg, Florida, United States

Introduction: The "phenol peel" was first described in the medical literature in the early 1960's. Gregory Hetter (and others) modified the formulas for the phenol peel in the 1990's, improving the safety of the original formula by decreasing the phenol concentration and discovering that croton oil was the actual active ingredient. The author began using Hetter's heresy formulas shortly after the original publication in 2000. The author offers a twenty-five year perspective of using these peels and will discuss how he incorporates them into his aesthetic oculofacial practice.

Methods: Many believe the modified croton oil-phenol peel is the Gold Standard in Facial Skin Resurfacing. However, Septisol, a key component of the original solutions, is no longer available. For new practitioners who wish to incorporate this deep peeling technique into their practices, both Novisol (PEG-80 sorbitan laurate) and Hibiclens (4% chlorhexidine gluconate (CHG)) have been touted as worthy substitutes to Septisol. The author will discuss his experience using both PEG-80 sorbitan laurate and 4% chlorhexidine gluconate (CHG) as a substitute to Septisol and will compare the efficacy of resurfacing using these formulations.

Results: The author has used the modified croton oil-phenol peel both as a stand alone and as an adjunctive procedure in aesthetic oculofacial surgery in over 500 cases. Originally trained in TCA peels and in ablative laser resurfacing, the author will discuss how and why the safety and efficacy of the modified croton oil-phenol peel exceeds these other procedures.

Conclusions: Chemical peels in general, and the phenol peel in particular, have been around seemingly forever. Chemical peels are not sexy. They are just extraordinarily effective. Since the advent of laser resurfacing in the 1990's, chemical peels have been largely pushed aside in favor of ever new and growing laser technologies. But in this author's opinion, chemical peels are not only cheaper for both patient and provider, they are just as, if not significantly more, effective than lasers, and are far safer to use. In this presentation, Dr. Kass will share his pearls for chemical peeling gleaned from over twenty-five years of experience with this technique.

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11:11–11:16 am

Applications of the Baylis Suture in Oculofacial Surgery

Robert Goldberg[1], Angela Oh[1], Steven Leibowitz[2]
[1]Los Angeles, California, United States, [2]UCLA, Los Angeles, California, United States

Introduction: Henry Baylis (1935-2017) was a surgical innovator who made numerous contributions to our specialty. He favored minimally invasive, efficient approaches using small incisions. One of his enduring ideas is what we call a "Baylis suture." A Baylis suture is used to create a point of deep fixation for a flap, in a way that minimizes the required exposure. Here we describe the Baylis suture and its various applications.

Methods: Review of a surgical concept and demonstration of surgeries.

Results: The surgical principle involves passing a suture from the deep surface of a flap to a skin exit point. A second pass reverses direction, re-entering through the same skin puncture and following the original track through the dermis to minimize dimpling. After traversing the dermis, the needle is redirected to engage a new path loop and then recovered below the flap. This allows the suture to securely engage the flap just below the skin exit.

The fundamental innovation is the ability to fixate the distal end of a flap through a small proximal opening. The point of fixation can also be purposefully planned based on cutaneous landmarks. As an alternative to starting below the flap, a double-armed suture can be passed through the skin twice, using long Keith needles below a long flap, and accessed at a distance for fixation.

Originally, the Baylis suture was developed for deep-plane facelifts to achieve precise fixation along the platysmal and upper SMAS flap. However, it has many potential uses. It can be applied in closed canthoplasty to fixate the tarsus and common tendon to the arcus marginalis. In midface lifting, pre- or post-periosteal dissection can be accomplished through a small opening, and the Baylis suture used to achieve symmetric fixation points in the deep areas of the flap, for fixation to the zygomatic periosteum or deep temporalis fascia. In endoscopic forehead lifting, central fixation can be achieved with a Baylis suture fixated at the vertex of the scalp and attached to the deep aspect of the forehead flap (Figure 1). In congenital ptosis surgery, a Baylis suture can secure a temporalis fascia strip to the frontalis muscle through a small incision. It may also be used to lift the medial canthal tendon with long Keith needles passed into the medial canthal ligament and attached to the scalp galea.

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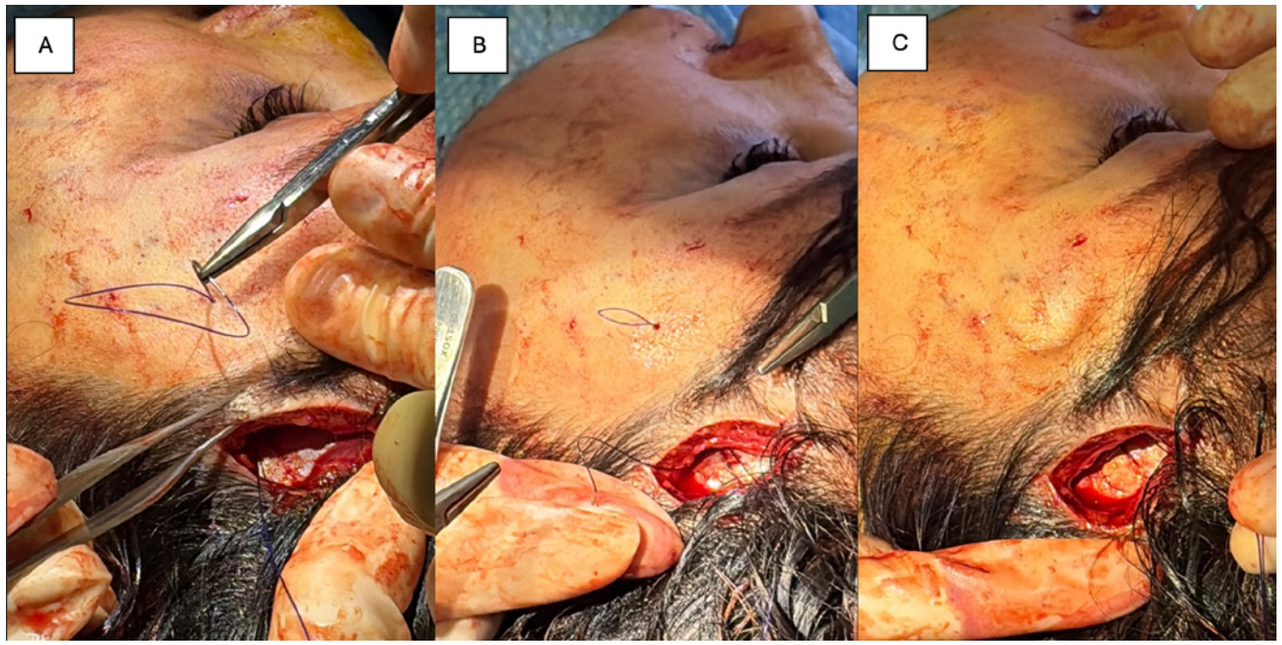
Long-lasting absorbable sutures are typically used. A long cutting needle makes a good suture tract in the dermis which can be retraced during suture re-entry, reducing dimpling. Hair entrapment should be avoided in the suture loop, as this can create a pathway for infection. Minor dimpling almost always disappears as the suture dissolves, but significant dimpling should be subcised or the suture replaced.

Conclusions: The Baylis suture is a versatile surgical concept applicable to many oculoplastic procedures.

Figure 1



11:32–11:40 am

Robert G. Fante

11:40–11:48 am

Edward H. Bedrossian

Lawsuit Lessons Learned: Fash Fire

1. Know the person behind the patient: their psychiatric nature and emotions.
2. **Improve communications between surgeon and staff: have multiple safeguards.*
3. Never point the finger at other team members. No one intentionally wants to create harm.
4. **Accurate detailed OR report: state steps of procedure only. Avoid impressions.*
5. **Post-operatively, communicate more frequently with patient.* Put yourself in their shoes. "Patients don't care how much you know, until they know how much you care".
6. Medical legal system is flawed. Outcome depends on the judge.
7. Stay confident, but humble. "The truth will make you free."

   **most important ones*

11:48–11:56 am

John D. Ng

ASOPRS FOUNDATION RALPH E. WESLEY LECTURE: KATHARINE A. PHILLIPS, MD

Saturday, June 13

Moderator: William R. Katowitz

12:16–12:46 pm

How to Identify and Approach Patients with Body Dysmorphic Disorder

Katharine A. Phillips, MD

8:01–8:07 am

Early Onset of Secondary Malignancy in a Child with Retinoblastoma and RB1 Mutation

Yasaman Ataei[1,2], Karen Revere[2]

[1]Ophthalmology, University of Pennsylvania, Philadelphia, Pennsylvania, United States, [2]Ophthalmology, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, United States

Introduction: Survivors of hereditary retinoblastoma are at high risk for secondary malignancies, especially sarcomas such as osteosarcoma, rhabdomyosarcoma, and leiomyosarcoma, which commonly develop in young adulthood[1,2]; the mean age is estimated to be 32 years (15 - 44 years)[3]. The risk for secondary malignancies is strongly linked to *RB1* mutation and further increased by radiation exposure [1,4]. We describe a younger child with a history of germline bilateral retinoblastoma (*RB1* mutation) treated only with systemic and intra-arterial chemotherapy in infancy who had a medial canthal and intranasal mass found to be a high-grade sarcoma.

Methods: Retrospective case report.

Results: An 8-year-old girl with a history of bilateral group B germline retinoblastoma (*RB1* mutation), left exotropia status post strabismus surgery, and left amblyopia presented with several months of epiphora and left medial canthal pain. She had been diagnosed with retinoblastoma at age 6 months and was treated with systemic carboplatin/etoposide/vincristine, followed by 6 cycles of intra-arterial chemotherapy. Subsequent dilated fundus examinations and surveillance MRIs as recently as 6 months prior to presentation showed no recurrence. On exam, she had left-sided induration and tenderness to palpation along the medial canthal region, lacrimal sac, and nasal side wall (Figure 1). There was no evidence of a mucocele. She had left-sided epiphora with a markedly positive dye disappearance test. An MRI with contrast revealed a heterogeneous medial orbital and intranasal mass that extended to the contralateral inferior frontal and superior ethmoid regions with diffusion restriction (Figure 2). She underwent an incisional biopsy of the intranasal and medial canthal components of the lesion. Probing and irrigation of the left nasolacrimal system revealed bony erosion of the lacrimal sac fossa. Pathology revealed a poorly differentiated high-grade sarcoma. Molecular studies to further characterize the sarcoma are pending.

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Conclusions: Our patient presented with epiphora and a new palpable mass while still in her first decade of life. Despite her young age and lack of history of radiation, imaging features and her known *RB1* mutation were concerning for a new malignancy, which prompted a biopsy that revealed high-grade sarcoma. Our case highlights the importance of maintaining a high index of suspicion for possible secondary malignancy when treating children with known *RB1* mutation.

Figure 1: Facial image notable for left-sided induration

Figure 2: Contrast MRI Face
Axial (A) T1-FS, Coronal (B) T1-FS and Axial STIR (C) images showing a rim-enhancing, multiloculated, heterogeneous, hypointense medial orbital/supranasal lesion measuring approximately 2.5 x 7 x 1.6 cm.

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8:07–8:13 am

Isolated Lacrimal Sac IgG4-Related Disease Presenting with Bloody Epiphora: A Case Series

Kendall Goodyear[1,2], Nicole Duncan[2], Donovan Reed[3,4]
[1]TOC Eye & Face, Austin, Texas, United States, [2]Mitchel and Shannon Wong Eye Institute, Dell Medical School at the University of Texas at Austin, Austin, Texas, United States, [3]TOC Eye and Face, Austin, Texas, United States, [4]Department of Ophthalmology, Brooke Army Medical Center, San Antonio, Texas, United States

Introduction: Bloody epiphora is an uncommon but concerning clinical finding that warrants a broad differential diagnosis. Possible etiologies include malignancy of the lacrimal drainage system as well as infectious or inflammatory processes.[1,2] Immunoglobulin G4-related disease (IgG4-RD) is a chronic, relapsing, multi-organ fibro-inflammatory condition that can affect nearly any organ system and has diverse manifestations.[3,4] When it manifests as orbital disease, it typically affects multiple structures within the orbit.[5] We present two cases of biopsy-confirmed IgG4-RD isolated to the lacrimal sac manifesting as nasolacrimal duct obstruction and bloody epiphora.

Methods: Case series and review of the literature.

Results: *Case 1:* A 74-year-old woman presented with several months of persistent bilateral epiphora accompanied by intermittent bloody tearing and chronic mucoid discharge. Conservative management provided no relief. Medical history was significant for cervical cancer, reportedly surgically cured. Probing and irrigation demonstrated bilateral partial nasolacrimal duct obstruction, worse on the right, without bloody reflux. MRI revealed inflammatory changes surrounding the right lacrimal sac but no definitive mass lesion. There was no evidence of lacrimal gland enlargement, extraocular muscle involvement, infraorbital nerve enlargement, orbital fat infiltration, sinus disease, or intracranial extension to suggest IgG4-related ophthalmic disease (Figure 1). Given the bloody epiphora, right-sided lacrimal sac biopsy was performed with nasal endoscopy (unrevealing) prior to definitive dacryocystorhinostomy (DCR). Histopathology demonstrated dense plasma cell infiltrates with elevated IgG4:IgG ratio, confirming IgG4-RD. Serum IgG4 levels were elevated. Systemic workup by rheumatology including CT chest/abdomen/pelvis and laboratory evaluation was normal. Following biopsy, she developed refractory dacryocystitis and underwent endoscopic DCR with stent placement and perioperative systemic corticosteroids. Post-operatively she had persistent signs of ongoing inflammation with bloody epiphora. In collaboration with rheumatology, she was started on induction therapy with 30mg prednisone for one month followed by monthly 10mg taper. The stent was subsequently removed and she has had no evidence of recurrence or active inflammation.

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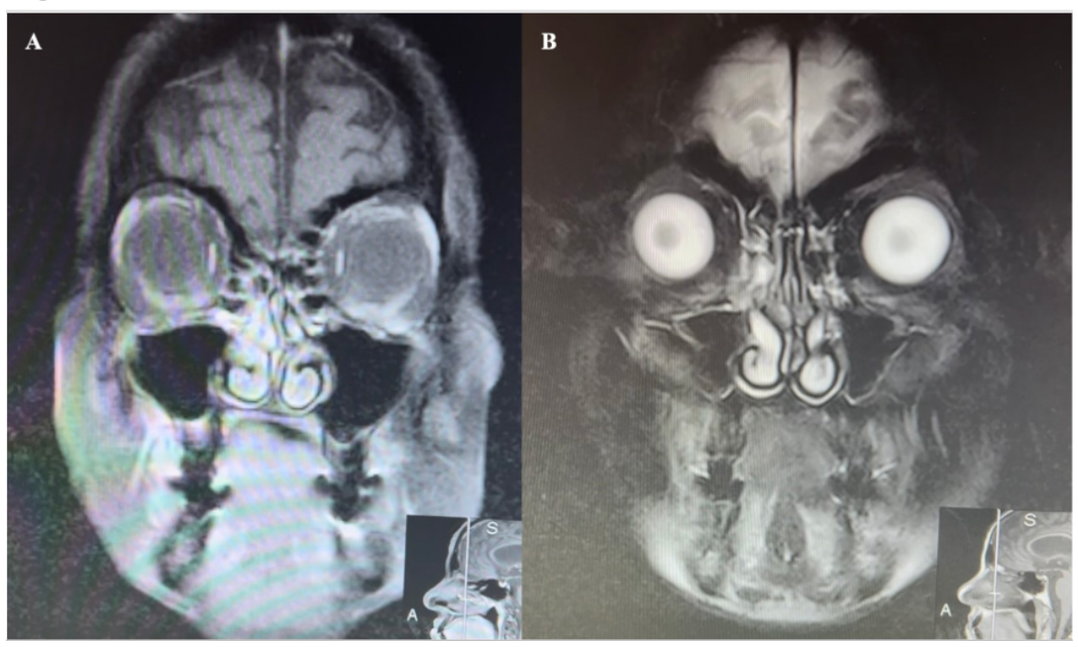
Case 2: A 68-year-old male with history of coronary artery disease, diabetes, and kidney disease presented with one year of right eye bloody tearing and six months of progressive right lower eyelid swelling. Examination revealed inferonasal eyelid edema with a palpable, non-tender mass causing slight hyperglobus with lateral displacement. Irrigation demonstrated a nasolacrimal duct obstruction. CT orbits revealed a lobular mass at the medial canthus superior aspect of the lacrimal duct on the right, concerning for neoplasia. Lacrimal sac biopsy confirmed IgG4-RD. Serum IgG4 levels were elevated. The patient ultimately underwent external DCR with stent placement and perioperative systemic corticosteroids and has recovered well. He is being established with rheumatology for consideration of systemic immunomodulatory therapy initiation.

Conclusions: IgG4-related disease is a rare but important consideration in cases of unexplained nasolacrimal duct obstruction and bloody epiphora.[6,7] While orbital manifestations of IgG4-related disease are increasingly recognized, isolated involvement of the lacrimal sac without other orbital or systemic findings is uncommon and may be easily overlooked. Imaging may be unremarkable, and definitive diagnosis often requires histopathologic confirmation. High clinical suspicion is therefore essential, as early recognition can influence management and prompt evaluation for systemic disease.

Figure 1



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8:13–8:19 am

Immunohistochemical Profiling of Orbital and Periocular Tissue Pathologies: A Review of the Literature and Primer for Oculofacial Surgeons

Daniel Azzam, John Hong, Jeremiah Tao
Division of Oculofacial Plastic Surgery, Gavin Herbert Eye Institute, UC Irvine, Irvine, California, United States

Introduction: The orbit and periocular region give rise to a broad spectrum of lesions that often pose diagnostic and therapeutic challenges. Immunohistochemistry (IHC) is an increasingly important adjunct to histopathology, enabling more precise diagnosis, prognosis, and clinical decision-making. This review summarizes the current uses of IHC in orbital and periocular pathologies, with an emphasis on markers with emerging clinical meaningfulness.

Methods: A comprehensive literature review was conducted using PubMed to identify relevant English-language articles published between 1990 and 2025. Pathologies were categorized by anatomic compartment and histogenic lineage, including epithelial, melanocytic, mesenchymal, lymphoid, neural, and infectious processes. IHC markers with diagnostic, prognostic, or therapeutic relevance were included.

Results: The review included 98 IHC markers and 78 orbital and periocular pathologies, organized by anatomic compartment and histogenesis, with corresponding histopathologic features summarized. Specific IHC markers with emerging diagnostic or prognostic significance included: PRAME for melanocytic lesions, CM2B4 for polyomavirus-associated Merkel cell carcinoma, BerEP4/BCL2 for basal cell carcinoma subtyping, SSTR2A for meningioma recurrence risk, p53 for cancer progression, p16/Rb for transcriptionally active high-risk human papillomavirus associated carcinomas, adipophilin for sebaceous carcinoma, and BCL2/6 for subclassifying lymphoid neoplasms, among others.

Conclusions: IHC is an increasingly important adjunct in the diagnosis of orbital and periocular pathologies, complementing histopathological assessment. Several markers have demonstrated emerging clinical significance by enhancing diagnostic accuracy with improved sensitivity and specificity, informing surgical and adjuvant therapy planning, refining prognostic evaluation, and guiding post-operative surveillance intervals, supporting more precise, patient-centered care in oculofacial plastic surgery.

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8:19–8:25 am

Tumor Recurrence and Survival in Pediatric Patients with Orbital Rhabdomyosarcoma: Comparing Biopsy Only versus Debulking as an Initial Treatment

Yasaman Ataei[1,2], Aaron Zhao[3], William Katowitz[4]
[1]Ophthalmology, University of Pennsylvania, Philadelphia, Pennsylvania, United States, [2]Ophthalmology, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, United States, [3]University of Pennsylvania, Philadelphia, Pennsylvania, United States, [4]Ophthalmology, Children's Hospital of Pennsylvania, Philadelphia, Pennsylvania, United States

Introduction: Orbital rhabdomyosarcoma is the most common primary malignant orbital tumor in children[1]. Disease process exhibits a male predominance and often presents before the age of 9 [1,2]. Modern treatment of orbital rhabdomyosarcoma requires a complex multidisciplinary approach[3]. The primary treatment modality is systemic multi-agent chemotherapy for 6-12 months, while local treatment includes surgical debulking and radiation therapy[4]. Orbital rhabdomyosarcoma demonstrates 10-year overall survival of 87-96% [2] and 10-year event-free survival of 63-86% [5].

Methods: Retrospective chart review of 27 patients with primary orbital rhabdomyosarcoma treated at the Children's Hospital of Philadelphia between 2006 and 2025. Patients were categorized by initial surgical approach: biopsy-only (n=18, 67%) or debulking (n=9, 33%). All patients received multimodal therapy, including chemotherapy and radiation. The primary outcome was eye preservation. Secondary outcomes included local recurrence, overall survival, and treatment complications.

Results: Median follow-up was 2.32 years (range: 0.4-16.5 years). Baseline characteristics, including age, tumor size, and histology, were well balanced across groups. Local recurrence occurred in 11% (2/18) of biopsy-only patients versus 33% (3/9) of debulking patients (p=0.30). Overall survival was 94% (17/18) in the biopsy-only group versus 78% (7/9) in the debulking group (OR 4.86, 95% CI 0.36-65.6, p=0.25).

Conclusions: Biopsy-only surgical approaches achieved lower recurrence rates and improved survival compared to debulking in pediatric orbital rhabdomyosarcoma, despite well-balanced baseline tumor characteristics. The consistent advantage of biopsy-only across multiple independent outcomes supports conservative surgical management that minimizes tissue disruption while maintaining excellent oncologic control. These findings validate current protocols advocating diagnostic biopsy as the primary surgical procedure, with chemotherapy and radiation providing definitive treatment.

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8:25–8:31 am

Analysis of Viral Upper Respiratory Infections and OR

Amy Huang[1], Jacob Larsen[1], Katherine Lucarelli[1], Sudarshan Srivatsan[1], Daniel Ozzello[1], Sophie Liao[1], Eric Hink[1], Caroline Vloka[2]
[1]Aurora, Colorado, United States, [2]Ophthalmology, Aurora, Colorado, United States

Introduction: Orbital cellulitis (OC) is a potentially vision-threatening condition. In the pediatric population it is usually a complication of acute rhinosinusitis. Seasonal variation in pediatric OC incidence has been observed, (Wladis 2023) raising the hypothesis that circulating viral upper respiratory infections may act as an inciting factor through sinonasal inflammation and secondary bacterial infection. The COVID-19 pandemic created an unprecedented natural experiment, as widespread non-pharmaceutical interventions led to marked reductions in common respiratory viral transmission. A recent population-based analysis from Georgia demonstrated with positive correlations between OC incidence and several non-COVID respiratory viruses (Prosser 2025). Whether these associations are reproducible across different geographic regions remains unknown. We sought to evaluate the relationship between circulating pediatric respiratory viral infections and orbital cellulitis incidence in Colorado before and during the COVID-19 pandemic.

Methods: We conducted a retrospective, population-based cohort study of children younger than 18 years with radiographically confirmed OC admitted to the Children's Hospital of Colorado system between January 1, 2020 and September 30, 2025. Cases were identified using a two-phase process consisting of electronic health record queries using ICD-10 diagnosis codes and relevant free-text terms, followed by manual chart review to confirm clinical diagnosis and post-septal orbital involvement on CT and/or MRI. All imaging was reviewed by a radiologist. Statewide pediatric viral infection rates, including influenza A and B, respiratory syncytial virus (RSV), parainfluenza types 1-4, rhinovirus/enterovirus, adenovirus, endemic coronaviruses, human metapneumovirus, and SARS-CoV-2 were obtained from the Colorado Department of Public Health and Environment for the time between January 2020 and September 20205 and for SARS-CoV-2 between January 2020 and March 2024. Associations between viral circulation and OC incidence were assessed using incidence rate ratio analysis and Pearson correlation coefficients.

Results: Incidence rate ratio analysis demonstrated a negative association between SARS-CoV-2 circulation and pediatric OC incidence. Pearson correlation analysis similarly showed a weakly negative correlation between COVID-19 rates and OC incidence. In contrast, positive correlations were observed between pediatric OC admission rates and circulating rates of influenza, RSV, parainfluenza type 1, Adenovirus and endemic (non-SARS) coronaviruses. No significant associations were identified between OC incidence and human metapneumovirus or parainfluenza types 2 and 3 (Table 1).

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Conclusions: In this population-based pediatric cohort, orbital cellulitis incidence was inversely associated with SARS-CoV-2 circulation and positively associated with several common respiratory viral pathogens. These findings support the hypothesis that typical viral upper respiratory infections may act as an inciting factor in the development of pediatric orbital cellulitis through sinonasal inflammation and secondary bacterial infection. Differences in viral tropism may explain the negative association with SARS-CoV-2 and lack of association with other viruses that cause upper respiratory tract infections. Together, these results reinforce prior population-level observations and extend previously reported findings to a distinct geographic region.

Figure 1

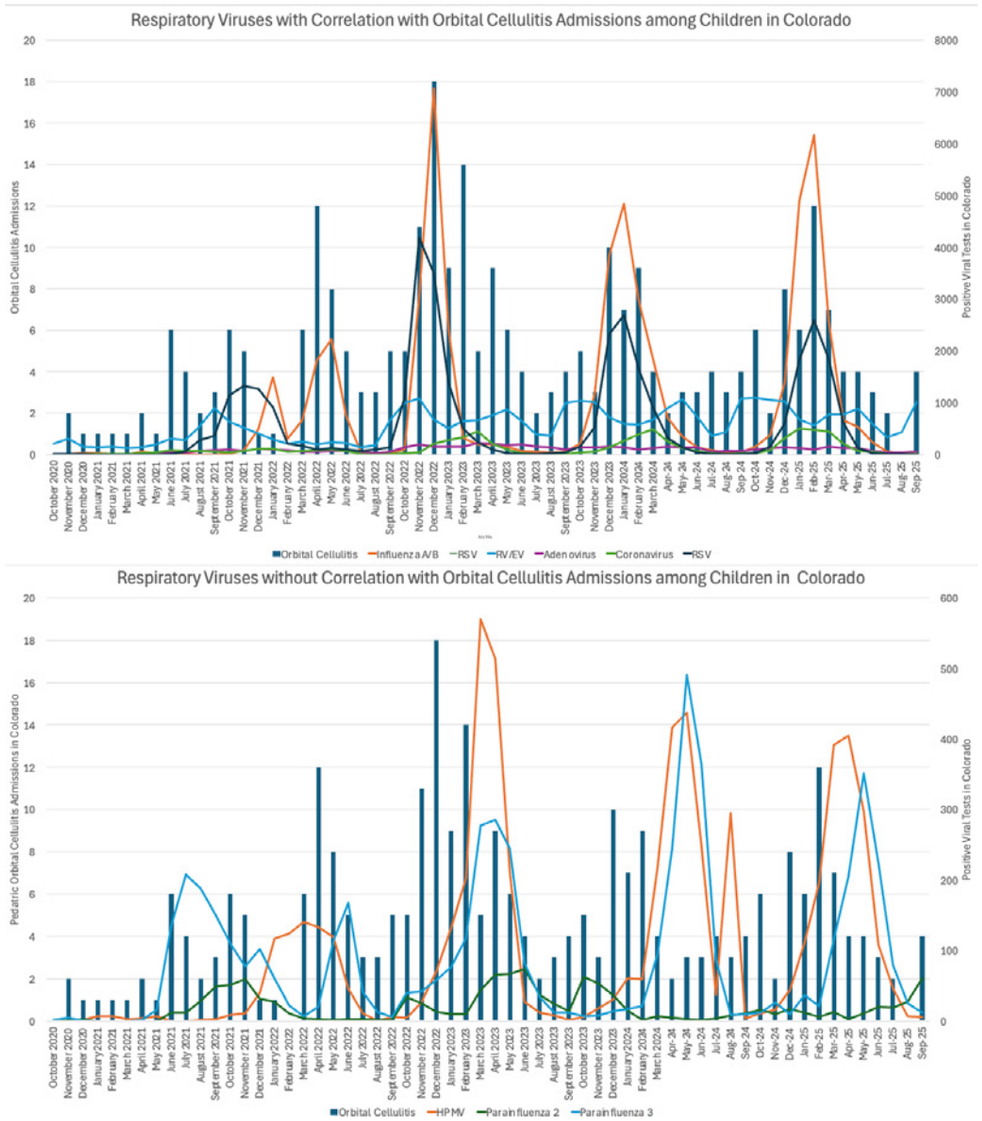

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Figure 2

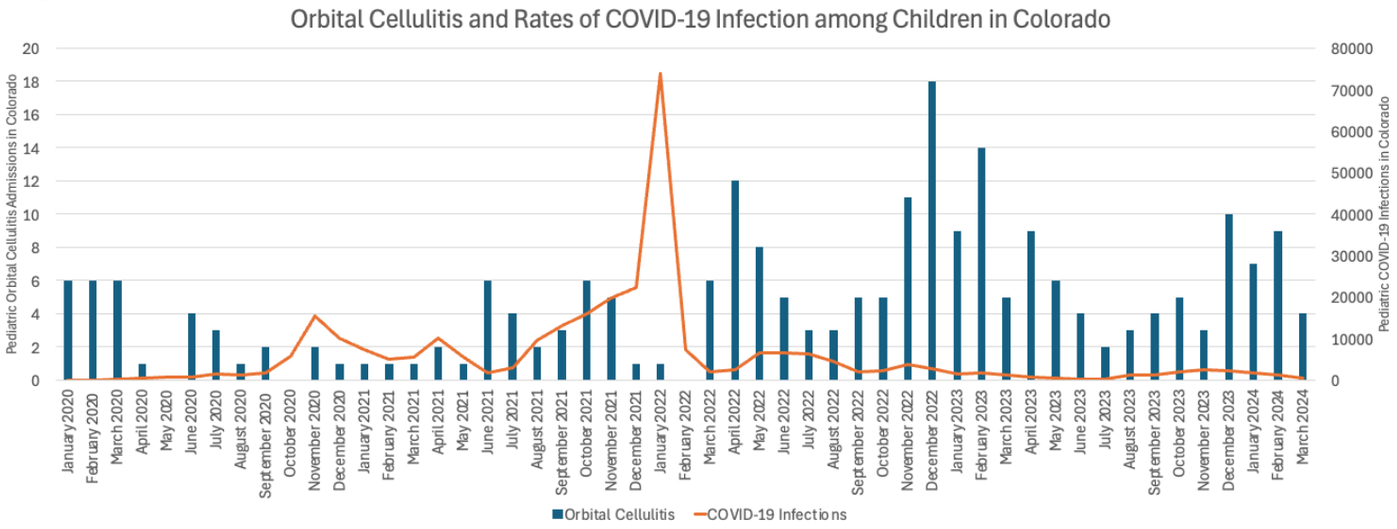

Table 1

Table 1: Pearson Correlation Coefficients (r) for viral rates and orbital cellulitis in Colorado from 2020-2025

Virus	R Value	P value
Influenza	0.6882	<0.00001
Adenovirus	0.6299	<0.00001
Parainfluenza 1	0.5203	0.00002
Non-Endemic Coronavirus	0.4859	0.00008
Respiratory syncytial virus	0.4621	0.0002
Parainfluenza 4	0.3485	0.0064
Rhino/enterovirus	0.2715	0.0359
COVID-19	-0.2213	0.0790
H. Metapneumovirus	0.1804	0.1678
Parainfluenza 2	0.062	0.6379
Parainfluenza 3	0.0069	0.9583

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SPECIAL PANEL: OPENING ACTS: ESSENTIAL STEPS FOR LONG-TERM SUCCESS

Sunday, June 14

Moderator: Jeremiah P. Tao

8:46–8:57 am

Practice Management Life Lessons and Business Fundamentals

Evan H. Black

8:57–9:08 am

Building a Practice – Beginner Pearls

Alison H. Watson

9:08–9:19 am

Pearls on Patient Experiences, Interactions, and Communication

Suzanne W. van Landingham

9:19–9:30 am

Favorite Surgical Procedure Pearls

Cameron B. Nabavi

POSTERS & NARRATED PRESENTATIONS

Posters and Narrated Presentations are hosted online before, during, and after the meeting. No CME is provided for viewing these.

FINANCIAL DISCLOSURES

Financial Disclosers for Posters and Narrated Presentations

Individuals with financial relationships in the last 24 months found **relevant** to their role(s) in the meeting are listed below.

RELEVANT				
Name	**Role**	**Company**	**Relationship Type**	**Ended?**
Suzanne Freitag	Co-Author	1-Amgen/Horizon 2-Argenx, 3-Ethyreal, 4-Immunovant, 5-Janssen, 6-Kriya, 7-Lassen Therapeutics, 8-Merida, 9-Sling Therapeutics, 10-Viridian 11-Medtronic 12-Poriferous 13-WL Gore & Associates	1-13-Consultant/Advisor	1-13-No
Femida Kherani	Co-Author	1-Amgen 2-Sunpharma 3-Abbvie 4-Allergan 5-Tarsus	1-Consultant/Advisor 2-Consultant/Advisor 3-Consultant/Advisor 4-Consultant/Advisor 5-Consultant/Advisor	1-No 2-No 3-No 4-No 5-No
Nahyoung Grace Lee	Co-Author	1-Amgen 2-Argenx	1-Consultant/Advisor 2-Consultant/Advisor	1-No 2-No
Wendy Lee	Co-Author	1-Allergan 2-Galderma 3-Revance 4-Horizon Therapeutics 5-Viridian	1-Consultant/Advisor 2-Consultant/Advisor 3-Consultant/Advisor 4-Consultant/Advisor 5-Consultant/Advisor	1-No 2-No 3-No 4-No 5-No
Daniel Rootman	Co-Author	1-Argenx 2-Amgen	1-Speakers Bureau 2-Speakers Bureau	1-No 2-No

FINANCIAL DISCLOSURES

RELEVANT				
Name	**Role**	**Company**	**Relationship Type**	**Ended?**
Julie Woodward	Co-Author	1-Allergan 2-Galderma 3-Merz Aesthetics 4-SkinCeuticals	1-Consultant/Advisor 2-Consultant/Advisor 3-Consultant/Advisor 4-Consultant/Advisor	1-No 2-No 3-No 4-No
Michael Yoon	Co-Author	1-Viridian 2-Amgen 3-Sling	1-Researcher 2-Researcher 3-Researcher	1-Yes 2-No 3-Yes
Sandy Zhang-Nunes	Co-Author	1-Tarsus Pharmaceuticals 2-Amgen	1-Consultant / Advisor 2-Consultant/Advisor	1-Yes 2-Yes

Individuals with financial relationships in the last 24 months found **not relevant** to their role(s) in the meeting are listed below.

NOT RELEVANT				
Name	**Role**	**Company**	**Relationship Type**	**Ended?**
Vikram Durairaj	Co-Author	Stryker	Consultant / Advisor	No
AMin Kassam	Co-Author	Stryker	Consultant / Advisor	No
Cameron Nabavi	Co-Author	Tourmaline Bio, Inc	Consultant / Advisor	Yes
Tanuj Nakra	Co-Author	AVYA skincare	Ownership interests	No
Bryan Winn	Co-Author	Roche	Independent Contractor	No

All other individuals in control of content have declared that they had no financial relationships with ineligible companies in the last 24 months.

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Abdominal Fat Graft Migration into Bulbar Subconjunctival Space after Midface Fat Transfer: A Case Report

Daniel Azzam[1], John Hong[1], Samir Nazarali[2], David Merriott[2], Maria Del Valle Estopinal[3], Jeremiah Tao[1], Sanjay Kedhar[2]
[1]Division of Oculofacial Plastic Surgery, Gavin Herbert Eye Institute, University of California, Irvine, Irvine, California, United States, [2]Division of Ocular Immunology and Uveitis, Gavin Herbert Eye Institute, University of California, Irvine, Irvine, California, United States, [3]Division of Ophthalmic Pathology, Gavin Herbert Eye Institute, University of California, Irvine, Irvine, California, United States

Introduction: Fat grafting as adjunct to lower blepharoplasty has gained increasing popularity, offering comparable outcomes and complication rates to traditional fat repositioning.[1] Reported complication rates include 11.2% for unsatisfactory aesthetic results or contour irregularities, 6.2% for hematoma, and 2.4% for revision surgery.[2]

Autologous fat is favored for its biocompatibility and durability, although its post-injection behavior can be unpredictable.[3] We report a unique case of autologous fat graft migration to the bulbar subconjunctival space following cosmetic lower eyelid blepharoplasty with autologous fat transfer from the abdomen and flanks to the midface, causing persistent inflammation unresponsive to medical management and successfully treated by surgical excision.

Methods: Case report.

Results: A 69-year-old woman presented for evaluation of a persistent red left eye. Five months earlier, she had undergone bilateral transcutaneous lower cosmetic blepharoplasty with autologous fat transfer performed at an outside facility. Review of the operative notes indicates fat was harvested from the abdomen and flanks following infiltration with tumescent solution. A total of 16 cc of fat was injected to the face: 4 cc into each infraorbital area, 2 cc into each supraorbital sulcus, and 2 cc into each lateral orbital inferior rim and zygoma.

The patient noted progressive redness and a stable, painless lesion on the inferonasal bulbar conjunctiva of the left eye. Topical fluorometholone acetate 0.1% had been prescribed by her referring ophthalmologist and continued for three months.

Slit lamp examination revealed 1+ conjunctival injection surrounding a well-circumscribed, elevated (>1 cm), translucent inferonasal bulbar subconjunctival lesion composed of clustered microlipid globules (Figure 1A, B). Due to persistent inflammation despite topical steroids, foreign body sensation, and cosmetic appearance, the patient elected to proceed with surgical intervention.

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An excisional biopsy of the lesion was done with reconstruction of the conjunctival defect with amniotic membrane transplant (AMT). Histopathologic examination revealed conjunctival stroma with collections of epithelioid histiocytes and foreign body-type multinucleated giant cells surrounding variable-sized empty lipid-type vacuoles which were highlighted with adipocyte differentiation-related protein (Adipophilin) immunohistochemical study (Figure 2A-E). Histochemical studies for detection of microorganisms (Gram stain, Grocott methenamine silver (GMS) and acid-fast bacilli (AFB) failed to detect bacterial, fungal and mycobacterial agents. The combined clinical and histologic findings favored lipogranulomatous inflammation associated with autologous fat graft degradation.

Postoperative recovery was uncomplicated (Figure 1C) with prednisolone acetate 1% tapered over several weeks. At postoperative week three, the patient was doing well with complete resolution of the lesion, improved cosmesis, and no recurrence or adverse sequelae.

Conclusion: Although fat graft migration is a known risk of aesthetic procedures, migration of fat to the bulbar subconjunctival space following blepharoplasty with abdominal fat transfer to the midface is extremely rare and may be misdiagnosed as a primary conjunctival lesion.

Figure 1

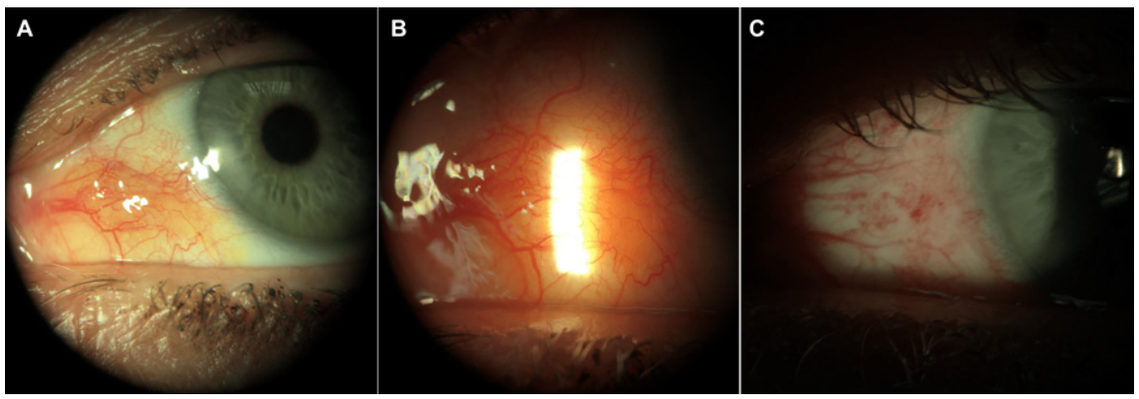
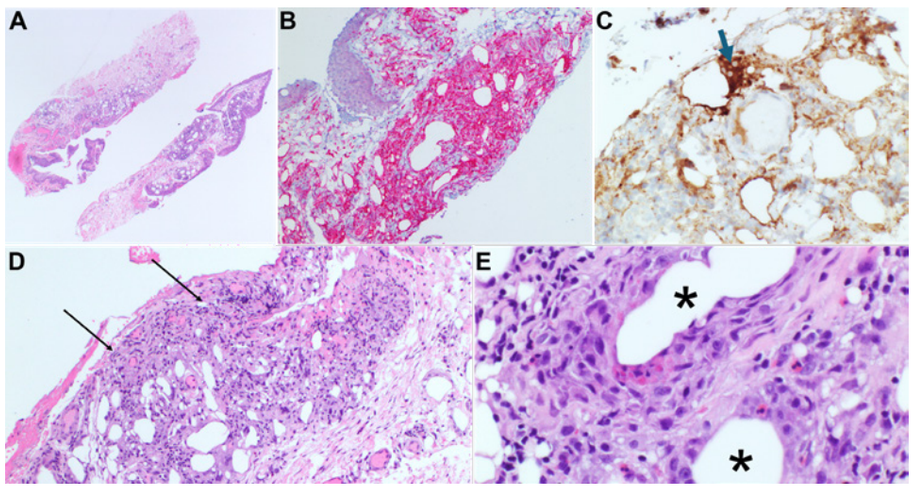


Figure 2



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Periocular Determinants of Perceived Femininity: Implications for Surgical Prioritization in Facial Feminization Surgery

Cat Burkat[1,2], Maria Jabbour[3]

[1]Dept of Ophthalmology and Visual Sciences, Oculoplastics, Orbital and Cosmetic Facial Surgery, Madison, Wisconsin, United States, [2]University of Wisconsin Aesthetics and Plastic Surgery, Madison, Wisconsin, United States, [3]Dept of Ophthalmology and Visual Sciences, University of Wisconsin-School of Medicine and Public Health, Madison, Wisconsin, United States

Introduction: Facial feminization surgery (FFS) has traditionally emphasized skeletal modification of the upper and midface, while periocular interventions are often considered secondary despite the central role of the eyes in gender recognition. Limited perception-based data exist to guide surgeons regarding which periocular features most consistently influence perceived femininity. This study evaluates preferences for specific eyelid and canthal characteristics to inform periocular surgical prioritization in FFS.

Methods: A cross-sectional online survey was conducted between January 2023 and September 2025. Participants viewed paired, computer-generated periocular images that differed by a single anatomic feature, including eyelid crease height/tarsal platform show, superior sulcus depth, lateral canthal tilt, and brow contour. Respondents selected the image perceived as more feminine. Demographic data were collected, and subgroup analyses were performed by gender identity and transition status. Quantitative responses were summarized as proportions with chi-square testing, and free-text responses were analyzed thematically.

Results: A total of 763 participants completed the survey. Preferences for eyelid crease height and superior sulcus depth demonstrated substantial variability. Overall, 55% of respondents favored a fuller upper eyelid over a higher eyelid crease, and 56% favored a fuller upper lid compared with a deeper superior sulcus. Transgender respondents and individuals planning gender transition more frequently preferred a fuller superior sulcus rather than a deep or hollow sulcus, contrasting with commonly cited cisgender aesthetic norms that favor upper eyelid hollowing or fat debulking. In contrast, lateral canthal position demonstrated remarkable consistency: an upward lateral canthal tilt was almost universally endorsed as feminine across all demographic subgroups. Brow contour preferences were mixed. Qualitative responses most frequently emphasized long eyelashes, arched brows, and an upward lateral canthal orientation as key feminine traits.

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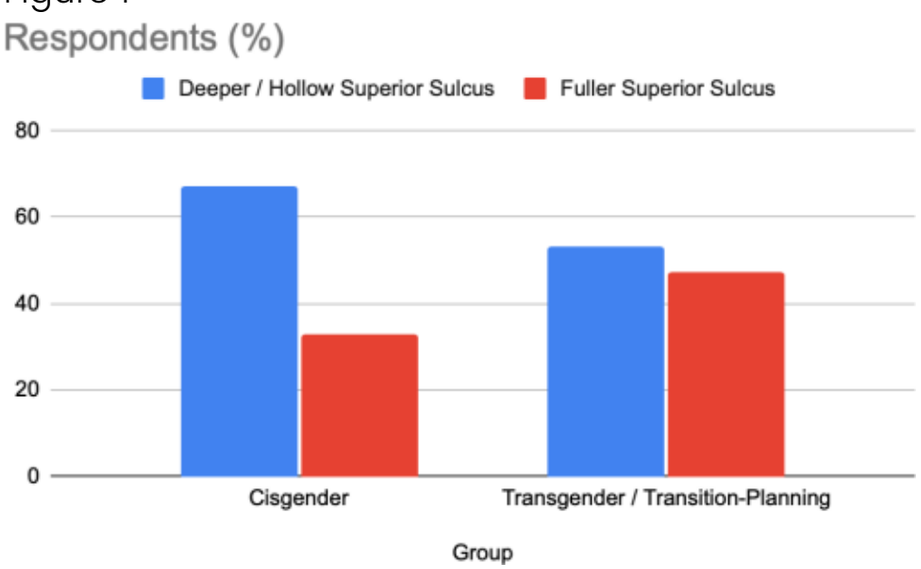
Conclusion: Among periocular features evaluated, upward lateral canthal tilt emerged as the most consistent determinant of perceived femininity, whereas preferences for eyelid volume and brow contour varied across patient populations. The observed preference among transgender respondents for a fuller superior sulcus highlights an important divergence from traditional cisgender-derived aesthetic assumptions and has direct implications for periocular surgical planning, particularly with respect to volume preservation versus fat debulking. Incorporating perception-based, identity-specific data into periocular planning may enhance patient-centered decision-making in facial feminization surgery. In addition, these findings are also helpful in guiding eyelid and aesthetic surgery outside of feminization surgery.

Figure 1



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Strategic Considerations in Launching a Med Spa: Lessons from Practice Experience and Industry Trends

Stephanie Thermozier[1,2,3], Lauren Deane[1], Evan Black[1,3,4], Dianne Schlachter[1,3,4]

[1]Consultants in Ophthalmic and Facial Plastic Surgery, Southfield, Michigan, United States, [2]Kresge Eye Institute, Detroit, Michigan, United States, [3]Beaumont Eye Institute, Royal Oak, Michigan, United States, [4]Detroit, Michigan, United States

Introduction: The medical aesthetics industry has experienced exponential growth, with the global med spa market projected to exceed $30 billion by 2030, driven by increasing demand for non-invasive procedures, personalized skincare, and wellness-focused services[1]. However, alongside this growth, concerns about market oversaturation have emerged, particularly in urban areas with a high density of aesthetic practices[2]. This abstract presents strategic considerations based on our practice's direct experience in opening a med spa, offering insights into key investments, operations, and marketing for long-term success.

Methods: This review is based on our practice's experience launching and operating a medical spa. Capital investments, service selection, location strategy, compensation models, marketing allocation, and client retention processes were evaluated. Equipment choices emphasized high-demand, revenue-generating services. Staffing structures were compared with industry benchmarks, and marketing strategies were assessed based on pre-opening and ongoing outreach. Industry growth and saturation trends were reviewed using publicly available market data.

Results: Investment and Services: Initial investment should focus on high-demand technologies, including radiofrequency (RF) microneedling, body contouring platforms, and a hydrofacial machine. These services were selected for their proven revenue-generating potential and market appeal[3]. Injectable treatments were integrated to address consistent client demand. A curated line of skincare products was included to support post-treatment care and recurring sales. Care should be taken to not over-invest on machines, particularly early-on as high cost of acquiring machines can diminish early profits.

Location and Visibility: The ideal storefront location offers high visibility and heavy foot traffic. Positioning this storefront next to a medical practice can encourage cross-referral opportunities and bolster credibility. This strategic placement aims to increase brand exposure and client acquisition.

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Employee Compensation Model: Competitive compensation aligned with industry standards was implemented, offering flexible structures such as straight commission, hourly plus commission, and hourly with performance-based bonuses. These models have supported both employee motivation and operational productivity[4].

Marketing and Client Outreach: Marketing should be allocated 8–10% of projected revenue, with efforts beginning prior to the spa's opening. Strategies include digital campaigns, community outreach, and a strong social media presence featuring employee-driven engagement to build authenticity and trust. Outreach program should target both new and existing clients, incorporating follow-up systems and personalized retention tactics to promote reciprocity and long-term loyalty.

Conclusion: Our experience underscores that success in the med spa industry requires a blend of strategic planning, patient-centered service design, and a strong operational framework. While the industry outlook remains positive, practices must remain cautious of oversaturation and prioritize differentiation, client retention, and continuous market adaptation to sustain growth in a competitive landscape.

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The Impact of Intermittent Agitation with Single Dose Hyaluronidase on the Dissolution Profiles of 27 Hyaluronic Acid Fillers

Sandy Zhang-Nunes[1,2], Shaili Davuluru[3], Corey Karp[3], Brandon Wong[3], Rasika Sudharshan[3,4], Alena Shen[3], Femida Kherani[5,6], Wendy Lee[7], Julie Woodward[8], Jill Foster[9]

[1]Department of Ophthalmology, Kaiser Permanente SCPMG, Los Angeles, California, United States [2]Department of Ophthalmology, Keck School of Medicine, University of Southern California, Los Angeles, California, United States [3]Keck School of Medicine of University of Southern California, Los Angeles, California, United States [4]Department of Ophthalmology, California Pacific Medical Center, San Francisco, California, United States [5]Southern Alberta Eye Center, Calgary, Alberta, Canada [6]Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada [7]Ophthalmology, Bascom Palmer Eye Institute, Miami, Florida, United States [8]Oculoplastic and Reconstructive Surgery, Duke University Eye Center, Durham, North Carolina, United States [9]Department of Ophthalmology, Ohio State University, Columbus, Ohio, United States

Introduction: With the rapidly growing use of soft tissue fillers, it has become increasingly critical to develop a standardized dissolution protocol in the case of severe complications such as ischemic vision loss. Our previous studies exploring multiple versus single dose dissolution, suggest that fillers can exhibit varying characteristics based on different methodologies[1-6]. The difference in dissolution propensity is likely a result of the rheological properties of a filler, including cross-linking technology, hyaluronic acid concentration, cohesivity, elasticity, and particle size, for instance. Further investigating dissolution profiles can help individually tailor and optimize dissolution based on filler type in the setting of an emergency.

Post-hyaluronidase injection massage is currently normal clinical practice in filler dissolution. Theoretically, massage can facilitate breakdown of the gel, especially for tightly-bound fillers, and optimal integration of the hyaluronidase. We hypothesize that stirring of the filler aliquot after hyaluronidase injection, which emulates massage of the filler site clinically, will lead to improved and faster dissolution of HA fillers.

Methods: In an in vitro experimental study, 27 HA fillers were tested using the intermittent stirring protocol. 0.2mL filler aliquots received single doses of recombinant human hyaluronidase (RHH) determined by our prior study elucidating minimum single dose required for dissolution[5]. The aliquot was stirred for 3 minutes immediately post-injection, and subsequently stirred for 1 minute every 30 minutes during a 3-hour observation period. Photos were taken from bird's eye and lateral views at each time point with videos when stirring occurred for comparison and evaluation of dissolution. The time point of confirmed dissolution was documented.

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Results were compared with our prior published data on undisturbed aliquot single dose dissolution with RHH over 6 hours. A Wilcoxon signed-rank test was performed to compare the dissolution times of various HA fillers between the single dose intermittent stirring vs. undisturbed protocol.

Results: All 27 fillers tested underwent complete dissolution with this stirring protocol within 3 hours and by 6 hours in the undisturbed protocol. Wilcoxon signed-rank analysis demonstrated a statistically significant difference between the two protocols ($W = 0.0$, $p = 7.6 \times 10^{-6}$), with dissolution times consistently lower in the intermittent stirring group compared to the single dose group. In the stirring protocol, a few fillers (RHA-1, Restylane Silk, and Juvéderm Voluma and Skinvive, and Symatese Lips and Lift) dissolved within 30 minutes of post-injection stirring while others required up to 3 hours to dissolve (Belotero Intense), although all experienced faster dissolution than when left undisturbed with single dose of RHH as demonstrated in Figures 1-5.

Conclusion: Intermittent stirring after hyaluronidase injection, which parallels massaging of the filler site clinically, appears to significantly expedite the dissolution process, with all fillers dissolving faster than when left unagitated at the same doses. This may encourage continued massage of the filler site after hyaluronidase administration for optimal filler dissolution in clinical practice, especially in the setting of filler complications that require emergent and effective dissolution. By understanding the effect of manipulating various factors during the filler dissolution process in vitro, clinicians can better understand how to optimize filler dissolution and develop a standardized methodology.

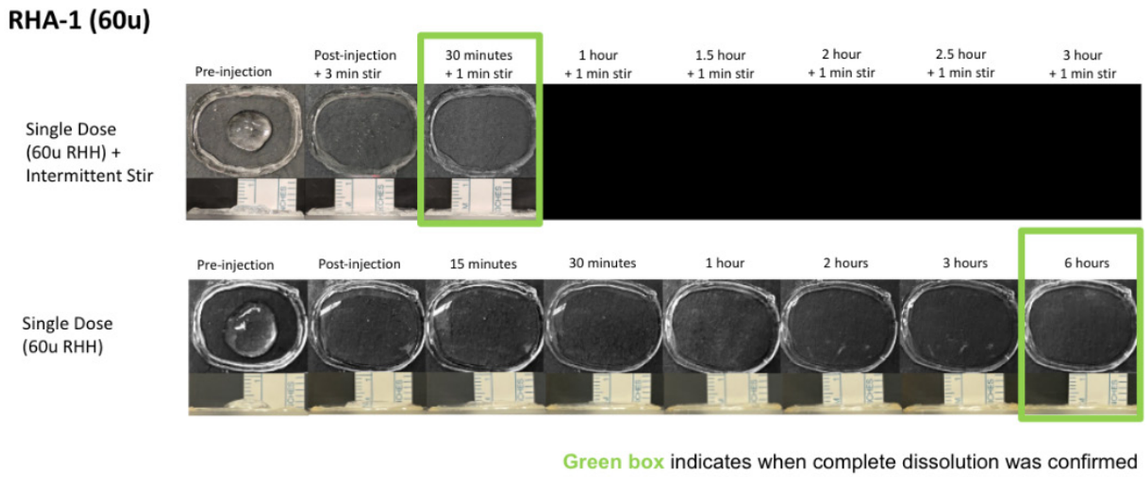

Figure 1. Comparison of RHA-1 single-dose dissolution with and without agitation.

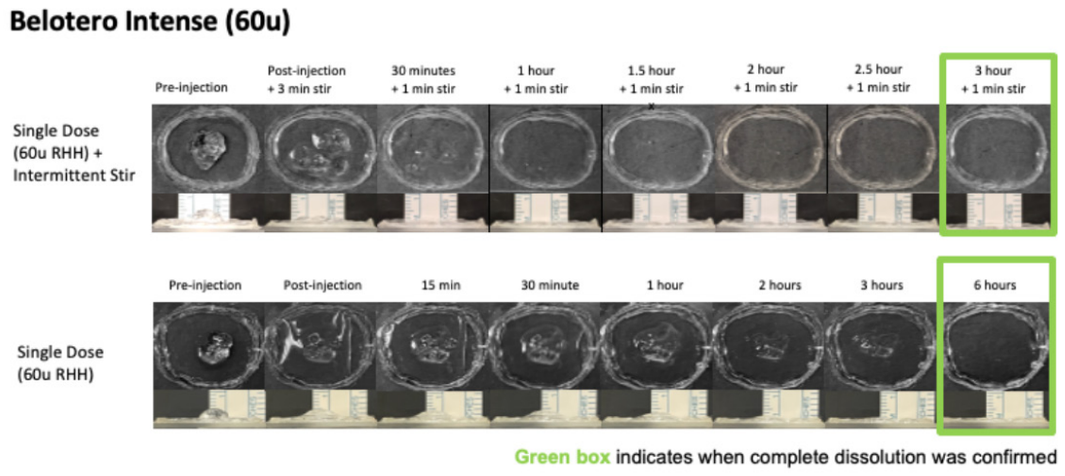

Figure 2. Comparison of Belotero Intense single-dose dissolution with and without agitation.

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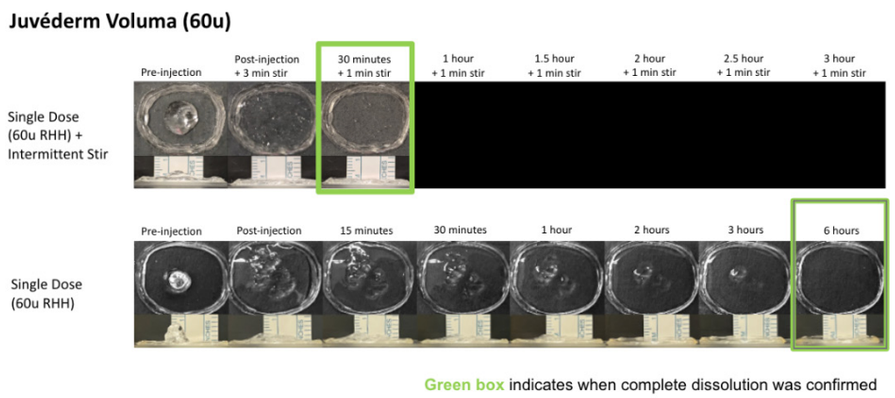

Figure 3. Comparison of Juvéderm Voluma single-dose dissolution with and without agitation.

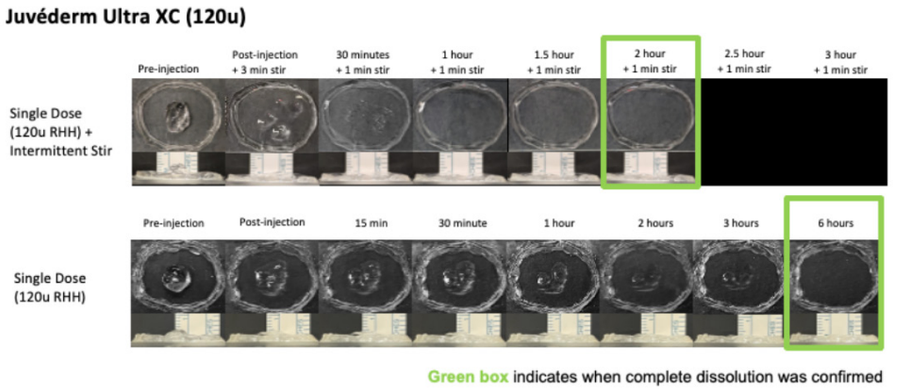

Figure 4. Comparison of Juvéderm Ultra XC single-dose dissolution with and without agitation.

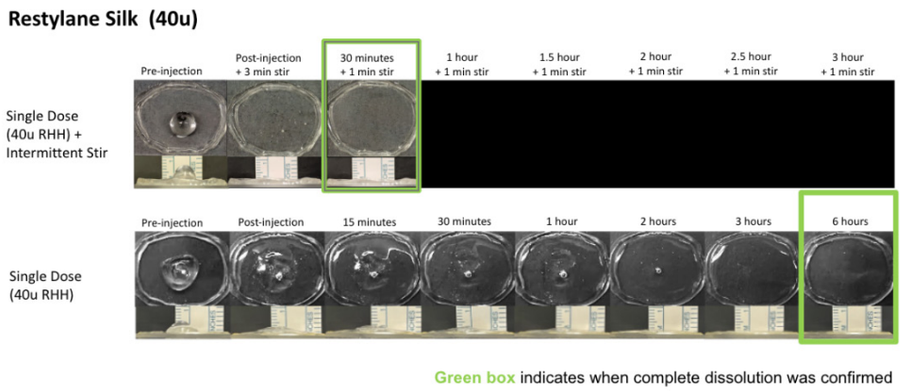

Figure 5. Comparison of Restylane Silk single-dose dissolution with and without agitation.

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Histologic Analysis of Anatomic Variance in Tarsal Ectropion Repaired by Posterior Lamella Excision

John Thompson, Pia Mendoza, Zhenyang Zhao, Michelle Jayaraj, Adam de la Garza, Ted Wojno
Emory University Department of Ophthalmology, Atlanta, Georgia, United States

Introduction: Involutional tarsal ectropion has been attributed to disinsertion of the lower eyelid retractors along with horizontal laxity. Reinsertion of the retractors can be achieved through excision of the posterior lamella by a transconjunctival approach and advancing the tissue to the inferior border of the tarsus.[1,2] This has been performed using a Putterman clamp, and the anatomy of the post-surgical lower eyelid retractor state has been examined in a cadaveric study, which showed advancement of the retractors and shortening of the posterior lamella.[3] No in vivo study, to our knowledge, has analyzed histologically the excised tissue from surgical correction in this manner. This study examines the microanatomy of the excised tissue following tarsal ectropion repair.

Methods: This is a retrospective, IRB-approved medical record review of patients who underwent lower eyelid tarsal ectropion repair with tissue sent for histologic analysis between 2015-2025. Processed tissue was stained at multiple levels with hematoxylin & eosin, and Masson trichrome. The surgical technique mirrored the procedure as described by Singa et al., but a hemostat was used rather than a Putterman ptosis clamp.[2]

Results: Nine patients who underwent lower eyelid tarsal ectropion repair were identified. The median age of patients included in the study was 65 years (range 39–94 years) (Table 1). Conjunctival tissue was present in all 9 specimens, and smooth muscle was present in 6 of the 9 specimens. A distinct dense band of collagenous tissue consistent with the capsulopalpebral fascia (CPF) was present in 3 out of the 9 specimens (Figures 1,2). One specimen had accessory lacrimal gland tissue present, likely from the inferior fornix. Striated muscle fibers were not identified in any of the samples. Masson trichrome stains supported the findings seen with hematoxylin & eosin stains.

Conclusion: This study adds in vivo understanding to the anatomic variance in tarsal ectropion. Chronic inflammation was nearly uniformly present, but lower eyelid retractor presence varied. Two specimens did not have any identifiable retractors, only three had CPF, while the majority had smooth muscle. Only two specimens had both CPF and smooth muscle present. These data support the hypothesis that disinsertion of the lower eyelid retractors plays a major role in involutional tarsal ectropion.

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Figure 1. (A) Hematoxylin and eosin stain shows conjunctival tissue with chronic inflammation (arrow) and a dense band of collagenous tissue consistent with capsulopalpebral fascia (star). (B) Masson trichome stain demonstrates dark blue staining of the capsulopalpebral fascia (arrow).

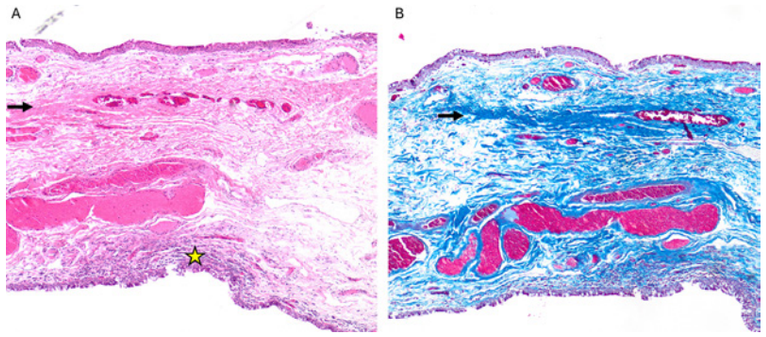

Figure 2. Masson trichrome staining demonstrates the presence of smooth muscle which stains red (arrows) and a band of blue staining dense collagenous tissue consistent with capsulopalpebral fascia (star).

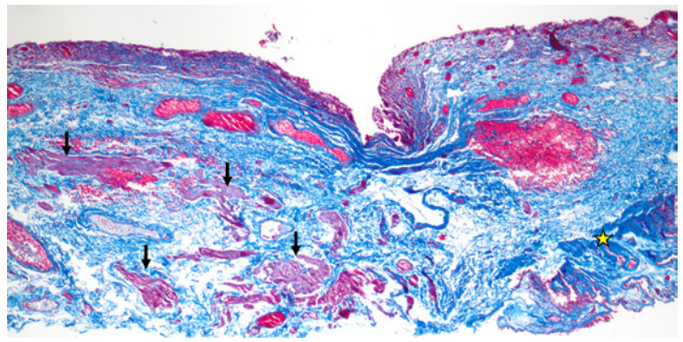

Table 1. Demographic and histologic data. + indicates presence. CPF, capsulopalpebral fascia.

Case	Age	Laterality	Conjunctiva	Inflammation	Fibrosis	**CPF**	*Smooth muscle*
1	95	Left	+	+	+	–	–
2	52	Left	+	+	+	+	+
3	39	Left	+	+	–	+	+
4	85	Right	+	+	+	–	+
5	65	Left	+	+	+	–	+
6	81	Right	+	+	+	–	+
7	59	Right	+	–	+	+	–
8	80	Left	+	+	+	–	+
9	48	Right	+	+	+	–	–

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Pericranial Flaps in Periocular and Orbital Reconstruction

Stephen Winkler[1,2], Neil Mundi[3], Amin Kassam[4], Omar Abdelaziz[5]
[1]Chicagoland Oculoplastic Consultants, Des Plaines, Illinois, United States, [2]Intent Medical Group, Arlington Heights, Illinois, United States, [3]Otolaryngology, Intent Medical Group, Arlington Heights, Illinois, United States, [4]Neurosurgery, Intent Medical Group, Arlington Heights, Illinois, United States, [5]UICOMR, Rockford, Illinois, United States

Introduction: Reconstruction of periocular and orbital defects presents a unique challenge due to the need for thin and durable soft tissue coverage, preservation of eyelid function and ocular coverage, and reliable vascularity. Reconstruction often involves the usage of flaps to meet this challenge - most commonly utilizing local eyelid flaps and grafts, regional rotational vascularized flaps, and free tissue transfer[1]. While effective in most cases, these options may be inadequate in the setting of severe tissue loss, prior surgery, or compromised local vascularity following radiation. In such situations, an alternative method for reconstruction is needed.

Pericranial flaps offer a well-vascularized, pliable, and locally available reconstructive option that can be rotated into the periocular and orbital region . Although widely utilized in craniofacial and otolaryngologic reconstruction, their application in oculoplastic surgery remains relatively underreported. Reported indications include large orbital bone defects, extensive eyelid defects involving loss of posterior lamella, socket reconstruction post exenteration, and orbital floor reconstruction in cocaine-addicted patients[2-4].

In this case series, we present three distinct periocular and orbital reconstructions utilizing tunneled pericranial flaps after conventional reconstructive methods proved insufficient.

Methods: A bicoronal flap was developed in all cases to allow maximal exposure. A template of the flap was designed and measure to determine the amount of tissue required for coverage of the defects. A subgaleal flap was the developed to this template. The flap was then tunnel to the area in need of a robust vascular supply.

Results: Case 1: A 63 year old male underwent radical resection annd reconstruction for an adenoid cystic lacrimal gland carcinoma with extension into the temporals fossa. He received radiation treatment to the surgical field. Two years following the procedure he developed an exposed orbital implant at the lateral canthus and exposed orbital bone. A pericardial flap was tunneled to the lateral canthus which allowed for complete closure without recurrence.

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Case 2: A 78 year old male underwent a lid sparing orbital exenteration for invasive squamous cell carcinoma with scleral and orbital roof invasion. Dural biopsies were negative for intracranial extension. In order to repair the orbital roof a pericardial flap was developed and rotated to cover the superior, posterior and medial defects of exposed orbital bone, dura and nasal mucosa. 3 months following the procedure the patient has complete skin coverage of the orbit with no CSF leak.

Case 3: A 42 year old male underwent globe sparing resection of a invasive lacrimal sac carcinoma with intraconal spread. The patient developed lagophthalmos from middle lamellar scarring. Despite three local rotational flaps, the patient continued with severe cicatricial retraction. A pericranial flap was split and tunneled along the nasal bridge allowing for improvement of middle lamellar scarring and lagophthalmos.

Conclusion: Pericranial flaps offer an effective yet underutilized option for periocular and orbital reconstruction. These flaps are particularly useful in complex cases characterized by severe tissue loss, absent vasculature, or exposure of critical structures. In this series, pericranial flaps were successfully employed for medial canthal, lateral canthal, and orbital reconstruction in patients where standard techniques were not feasible. These cases highlight the versatility and reliability of the pericranial flap in complicated oculoplastic reconstruction.

Figure 1

Case 1 Showing the initial defect, placement of the pericranial flap into the lateral canthus and orbit, and complete healing with no residual defect

Figure 2

Case 2 at post op week 1 with pericranial flap highlighted and post op month 3 with near complete skin epithelialization

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Figure 3

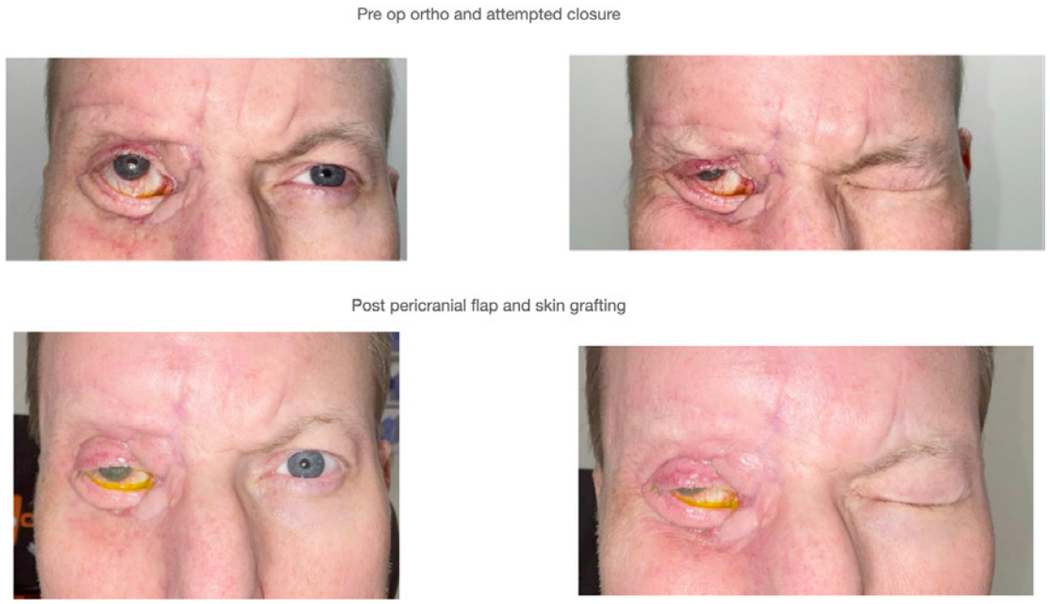

Figure 4

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Quit Picking at That! Self-Inflicted Cicatricial Ectropion

Katherine Lucarelli, Amy Huang, Sudarshan Srivatsan, Caroline Vloka, Daniel Ozzello, Sophie Liao, Eric Hink
Department of Ophthalmology, Sue Anschutz-Rogers Eye Center, University of Colorado, Aurora, Colorado, United States

Introduction: Skin picking disorder, (SPD) also known dermatillomania, has an estimated prevalence of 3% in the general population.[1] The face is the most commonly affected location. Patients may pick at normal skin, acne lesions, or scabs from previous picking episodes, with fingernails, tweezers, or other implements. Repetitive picking may result in complications ranging from superficial lesions with minor scarring and pigmentation abnormalities to deep wounds requiring antibiotic treatment or surgical intervention.[2] Most patients seek dermatologic care for cosmetic damage incurred but rarely seek mental health treatment for the condition.[3] Oculoplastic literature on SPD remains limited; here we present a case of periocular trauma secondary to SPD.

Methods: case report

Results: A 65-year-old male with history of hypertension, depression, and skin picking disorder presented with cicatricial right upper eyelid ectropion and retraction. On examination the right temporal superior eyelid margin was adherent to the upper eyelid skin beneath the brow, there was medial canthal webbing, 4 mm of lagophthalmos, and multiple wounds on the face in various stages of healing (Figures 1 and 2). The patient had previously been evaluated by family medicine and dermatology but had not seen psychiatry. Right upper eyelid ectropion and retraction repair were discussed, and the decision was made to defer surgery until the patient's SPD was under better control. After one year under care of psychiatry, co management with behavioralist and wound care specialists, the patient demonstrated appropriate insight and good medication adherence, thus the decision was made to proceed with surgery. He underwent right upper eyelid cicatricial ectropion repair with full thickness skin graft and medial canthal scar revision. A clear plastic shield was temporarily sutured to the patient's skin to protect the graft in the immediate post operative healing period. At post operative month five, the patient continued with multidisciplinary management for SPD. There was resolution of retraction and lagophthalmos and moderate improvement in medial canthal webbing (Figure 3).

Conclusion: Oculoplastic surgeons should maintain awareness of SPD when evaluating patients with recurrent periocular wounds and scarring. Successful surgical management requires preoperative psychiatric optimization that may include medication and behavioral therapy, multidisciplinary collaboration, and patient insight into the compulsive nature of the condition. Creative strategies may be employed to deter picking and aid post operative recovery.

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Figure 1

Figure 2

Figure 3

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Sutured Conformer for Inferior Fornix Optimization: A Modified Surgical Technique

Janice Hernandez, Peter Timoney
Department of Ophthalmology, University of Kentucky, Lexington, Kentucky, United States

Introduction: Optimizing prosthetic fit is a common goal of anophthalmic socket surgeries.[1] A poor-fitting prosthetic is cosmetically unacceptable and has a significant psychosocial impact on patients.[2] Establishing a deep inferior fornix is important for prosthetic retention. However, as orbital volume is maximized, conjunctival shortening may occur due to various factors, including post-operative edema or issues with the conformer position.[3]

We propose a new modified surgical technique to retain inferior fornix depth after anophthalmic socket surgery with orbital implant insertion.

Methods: This is a non-randomized, controlled prospective study involving patients undergoing enucleation, evisceration, or dermis-fat graft with orbital implant insertion. The study compares two surgical techniques in the anophthalmic socket: temporary tarsorrhaphy overlying a conformer and a temporary sutured conformer through the inferior tarsal plate. Sutures in each group were removed at post-operative week one.

Inferior fornix depth was measured pre-operatively and at post-operative month three. Lower eyelid retraction was measured with and without a prosthetic in situ at post-operative month three for comparison. Outcome measures included rates of inferior fornix contraction and prosthetic extrusion.

Results: Patients who received the sutured conformer technique had greater inferior fornix depth and lower rates of inferior fornix contraction and prosthetic extrusion at post-operative month three compared to patients receiving a temporary tarsorrhaphy.

Conclusion: A sutured conformer may improve prosthetic retention after anophthalmic socket surgery with orbital implant insertion.

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The Effect of Posterior Approach Ptosis Surgery vs. Anterior Approach Ptosis Surgery on Signs of Dry Eye Syndrome

Ofira Zloto
Tel Aviv, Israel

Introduction: To examine the effect of blepharoplasty and Müller-muscle-conjunctival-resection (MMCR) compared to blepharoplasty and levator aponeurosis advancement (LAA) surgery on dry eye syndrome (DES).

Methods: *This is* prospective comparative case series. Twenty-five adult MMCR patients and 22 adult LAA patients with dermatochalasis and ptosis.The pre-procedure and postoperative margin reflex distance1 (MRD1), DES tests results of the 2 groups were compared.

Results: The patients in both groups had significant improvement in MRD1 postoperatively. There were significant decrease in the postoperative TBUT, Schirmer test, and increase in fluorescein staining following MMCR surgery compared with the preoperative values (paired t test, $P < 0.01$, $P = 0.01$, and $P < 0.01$, respectively), while the LAA patients had significant differences in their decrease in TBUT and increase in fluorescein staining, and LG results compared to their preoperative results (paired t test, $P < 0.01$, $P < 0.01$, and $P < 0.01$). The postoperative vs. preoperative change in the Schirmer test results was higher in the MMCR group compared to the LAA group (ANOVA, $P < 0.01$).

Conclusion: Both MMCR and LAA surgical approaches cause an increase in signs of DES. This increase is attributed to both aqueous tear deficiency and evaporative dry eye (EDE) has shown in different tests, following MMCR surgery, and due to EDE alone after LAA surgery. Physicians need to be aware of the risk of DES and discuss it as a potential complication with patients prior to ptosis surgery. LAA may be considered a preferable option compared to MMCR in cases of severe ptosis and DES.

Use of Biomarkers and Genomic Findings to Help Determine Best Management for Advanced Conjunctival Squamous Cell Carcinoma

Susan Tucker[1,2]

[1]Lahey Hospital & Medical Center, Reading, Massachusetts, United States [2]U Mass Chan Medical School, Worcester, Massachusetts, United States

Introduction: Invasive conjunctival squamous cell carcinoma (SCC) is rare, occurring in 0.03-1.9 per 100,000 persons/year in the US.[1] Promising results have been shown with targeted therapy (epidermal growth factor receptor inhibitors such as cetuximab and erlotinib) and off-label use of immunotherapy (immune checkpoint inhibitors (ICI) such as cemiplimab and pembrolizumab). However more research is needed to determine which patients will benefit from these therapies.

Methods: 2 Case reports.

Results: A 64-year-old lady presented with 2-month history of left nasal conjunctival mass involving caruncle, bulbar and tarsal surfaces (Fig. 1). Pathology showed invasive SCC. Biomarker testing showed tumor mutational burden (TMB) of 6 mutations per megabase (muts/Mb) (below levels predicted to respond well to immune or targeted therapies) and stable microsatellite status (less likely to respond to targeted or immune therapies). Genomic findings showed tumor mutations involving $ARID_1A$, PIK3CA (found to be associated with poor prognosis in head and neck SCC),[2] RB_1 and TP_{53}. Metastatic workup negative. Progressed despite 4 treatments of planned neoadjuvant cemiplimab (350 mg IV every 3 weeks) (Fig. 2). She declined exenteration. Underwent conjunctiva and eyelid excision with amniotic membrane, margins clear on pathology. No recurrence at 1 year.

A 61-year-old man presented with 3-month history of right nasal conjunctival mass (Fig. 3). Metastatic work-up negative. He initially declined immune/targeted therapy or exenteration. Day of planned surgical resection, surgery was cancelled due to rapid progression (Fig. 4). He was restaged and a new 8 mm suspicious parotid lymph node detected. He again refused exenteration and was started on neoadjuvant IV cemiplimab but at planned 3rd infusion urgent exenteration done 4 months after his initial presentation due to continued growth (Fig. 5). Restaging showed stable right parotid lymph node, otherwise negative. Parotid biopsy nondiagnostic but scant tissue. He therefore completed 6,000 cGy irradiation postoperatively. He is doing well 18 months later.

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Conclusion: Although systemic targeted and immune therapies show promise for advanced conjunctiva SCC, more research on biomarkers and genomic alterations is needed to determine patients most likely to respond to these treatments. Increased TMB has been shown to be associated with greater sensitivity to immune checkpoint inhibitors and targeted therapy.[3] Esmaeli et al reported only one (with high TMB 75 muts/Mb) of 5 patients with advanced conjunctival SCC responded to ICI. No biomarkers were done on the remaining 4 patients.[4] Demirci et al reported complete response after 7-10 months of ICI at short term follow-ups of 2, 4, 6 and 11 months in 4 patients with high TMBs 87.5, 61.5, 109.6, and 95.2 muts/Mb but poor response with progressive disease in the remaining patient with TMB of 8.1 muts/Mb.[5]

The authors recommend obtaining tissue biomarker and genomic findings on all patients with advanced conjunctival squamous cell carcinomas to help determine how closely to monitor patients, assist with management recommendations and help discover additional markers for improved response to targeted therapies and immunotherapies.

Figure 1

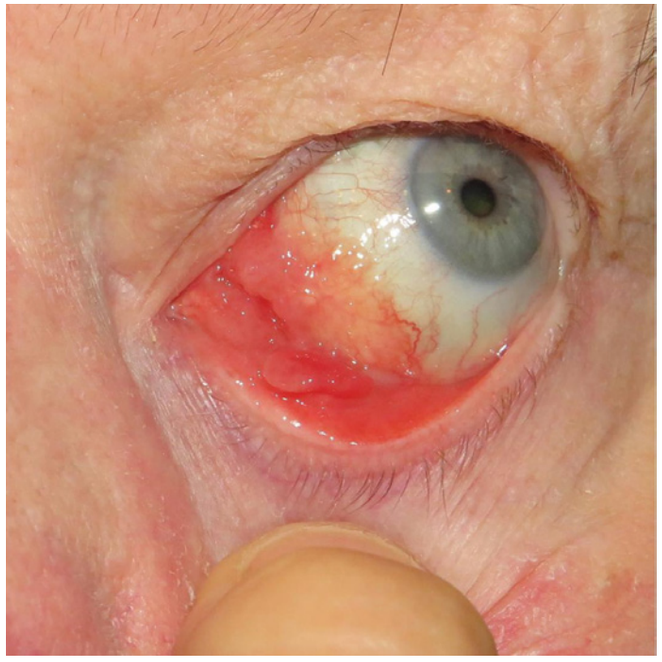

Figure 2

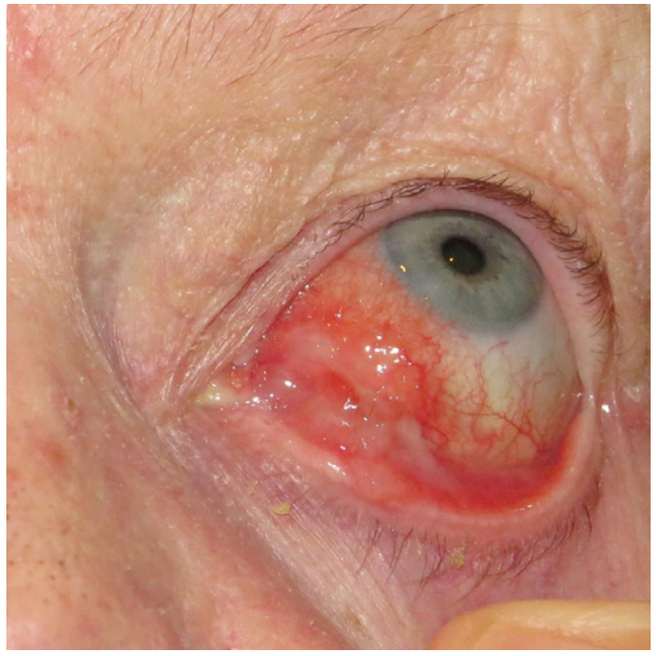

Figure 3

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Figure 4

Figure 5

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Bilateral Diffuse Orbital Fat Necrosis after Lower Lid Blepharoplasty

Elisabeth Sledz[1], Aileen MacLachlan[2]
[1]Ophthalmology, UT Health Sciences Center, San Antonio, San Antonio, Texas, United States [2]Ophthalmology, University of Utah School of Medicine, Salt Lake City, Utah, United States

Introduction: Lower lid blepharoplasty is primarily an aesthetic, elective procedure. Post-operative complications are rare with infection rates less than 1.6%.[1,2] To our knowledge there are no documented reports of diffuse bilateral fat necrosis post-blepharoplasty. This report describes a 45-year-old female who developed diffuse bilateral lower lid fat necrosis and delayed orbital cellulitis following a bilateral lower lid blepharoplasty.

Methods: Case report of patient's diagnostic and treatment approach and outcome.

Results: This patient underwent a bilateral lower eyelid blepharoplasty three months before presenting to the Emergency Department. Her post-operative course was complicated by small bilateral lower lid abscesses which were drained in clinic and treated with oral antibiotics. She subsequently presented to the ED with periorbital pain and swelling and was admitted for broad spectrum IV antibiotics.

On presentation visual acuity was 20/20 bilaterally with full color vision, normal intraocular pressures, and normal pupillary responses. Right eye demonstrated restricted extraocular movements in all directions, periorbital edema and erythema with a round fluctuant mass along the inferolateral orbital rim. Left eye was remarkable for two small fluctuant masses along the left orbital rim. Dilated fundus examination was unremarkable bilaterally (Image 1). CT orbits with contrast demonstrated early right orbital phlegmon formation, multiple preseptal abscesses along bilateral inferior orbital rims (Image 2).

After 24 hours of IV antibiotics, the patient acutely and severely worsened with proptosis, elevated IOP, and decreased vision (Image 3). She underwent urgent exploratory anterior orbitotomy of the right lower lid with canthotomy, abscess drainage, and drain placement. One lateral abscess was cultured, and necrotic orbital fat was identified throughout the lower eyelid (Image 4). Symptoms improved quickly post operatively with return of vision, improvement of extraocular motions and reduction in proptosis. Pathology of the orbital grew corynebacterium bovis, an uncommon and generally antibiotic-susceptible opportunistic bacterium. The patient was transitioned from IV to an oral methylprednisolone taper and topical bacitracin/polymyxin B ointment.

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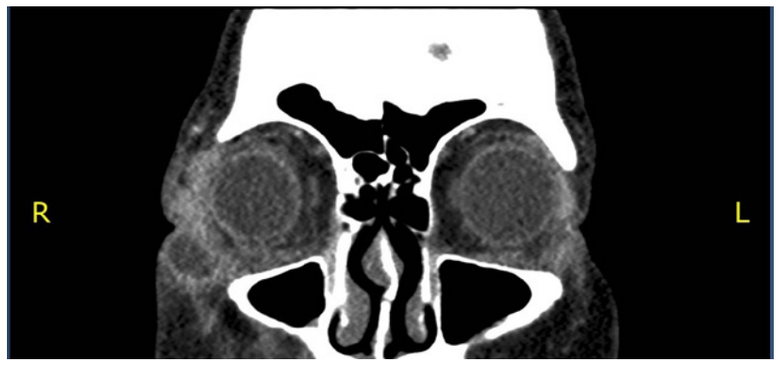
One month post-op the patient had slight hollowing of the right lower lid near the abscess drain site, likely from fat loss secondary to necrosis. She was scheduled to repair of her lateral in order to stabilize that hollow area. Considerations of filler and fat transfer were discussed but patient elected to monitor (Image 5).

Conclusion: This report describes multiple unusual complications of lower lid blepharoplasty including diffuse bilateral fat necrosis and orbital cellulitis caused by corynebacterium bovis. MRSA has been known to cause abrupt and permanent vision loss in orbital cellulitis, but there are no reported cases of necrotizing orbital infection caused by corynebacterium bovis.[3]*(Reference). It is possible that the orbit was seeded by the aforementioned bacteria during the primary operation or in the post-operative period as patient resides in a rural area. Another possibility is an undiagnosed predisposition to poor wound healing or immunocompromise state, however, this patient has no history to suggest this.

Although the etiology of this patient's presentation can only be speculated, the rarity of it makes documentation of her successful outcome important. After undergoing an urgent incision and drainage, canthotomy, and rubber band drain placement and continuation of antibiotics, she experienced rapid improvement and an aesthetically pleasing outcome.

Figure 1

Figure 2



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Implementation of the “Nunery” Medial Canthal Incision for Sino-Orbital Chondromyxoid Fibroma Resection

Jason Sokol[1], Joshua Fernandes[2], Jillian Gallegos[1], Michael Price[3], Vidur Bhalla[3], Sarah Frederick Fisher[2]

[1]Department of Ophthalmology, University of Kansas Medical Center, Kansas City, Missouri, United States [2]University of Kansas Medical Center, Kansas City, Missouri, United States [3]Department of Otolaryngology, University of Kansas Medical Center, Kansas City, Missouri, United States

Introduction: Chondromyxoid fibroma is a benign yet debilitating tumor of bone. Rare reports in the literature describe involvement of the sinuses and bony orbit[1]. Classically, a mass in this location is surgically excised via a transcaruncular approach or by the classical Lynch technique[2]. These approaches are limited by a higher risk of damage to lacrimal structures and by poor cosmetic outcomes, respectively[3]. The “Nunery” technique is a transcutaneous medial canthal tendon approach that provides excellent exposure to the medial orbital wall, nasal bones, and sinuses while avoiding the risks and cosmetic scarring seen with other approaches[4]. Here, we report a rare presentation of chondromyxoid fibroma and describe its successful resection using the “Nunery” incision technique.

Methods: A retrospective chart review of the patient’s presentation, workup, treatment, and follow up was conducted.

Results: We discuss a rare case in which a 32-year-old female presents to an outside hospital with facial pain and left epiphora after the birth of her child. Prior to presenting to our medical center, the patient underwent a dacryocystorhinostomy by another surgeon and was found to have a mass with pathology concerning for chondromyxoid fibroma. MRI revealed an expansile, homogenously enhancing left frontoethmoidal sinus mass lesion with post obstructive left frontal sinusitis and mild medial-extraconal left orbital tumoral expansion, consistent with chondromyxoid fibroma. A sino-orbital approach using the Nunery medial canthal incision combined with endonasal endoscopy achieved complete excision of the chondromyxoid fibroma without significant scarring or injury to adjacent structures.

Conclusion: The Nunery transcutaneous medial canthal incision approach is effective for access to the medial orbit and frontal to the ethmoid sinuses with minimal risk to the surrounding vasculature, facilitating cosmetically effective surgical procedures and resections.

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Figure 1

Figure 2

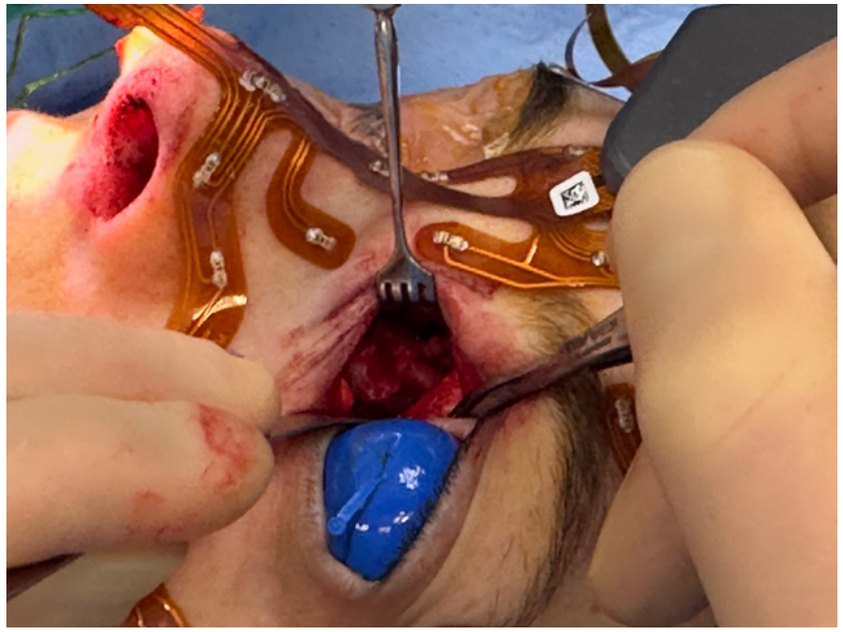
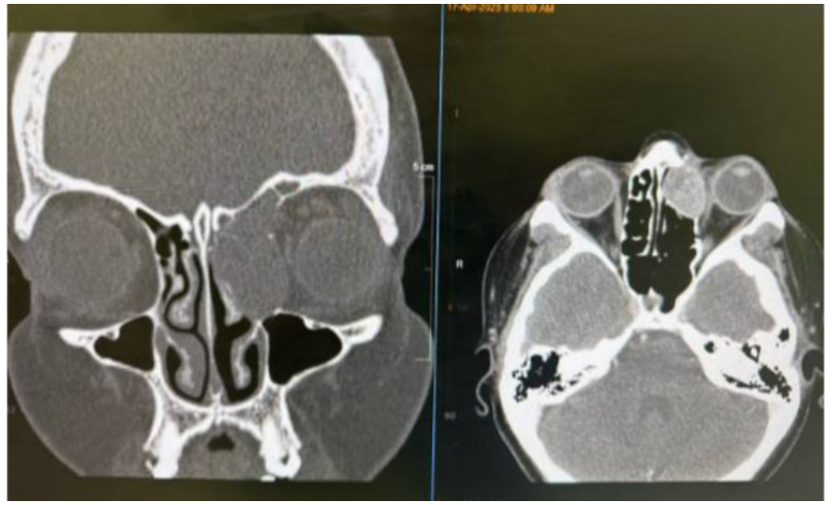


Figure 3



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Novel Use of the "Nunery" Medial Canthal Incision: Anterior Ethmoidal Artery Ligation

Jason Sokol[1], Jillian Gallegos[1], Michael Price[2], Vidur Bhalla[2], Phillip Zhuang[3]
[1]Department of Ophthalmology, University of Kansas Medical Center, Kansas City, Missouri, United States [2]Department of Otolaryngology, University of Kansas Medical Center, Kansas City, Missouri, United States [3]University of Kansas Medical Center, Kansas City, Missouri, United States

Introduction: Traditional treatment for recurrent epistaxis includes nasal packing and endoscopic sphenopalatine artery ligation or embolization[1]. Ligation of the anterior ethmoidal artery (AEA) has been shown to be effective in cases of refractory epistaxis despite recurrent embolization of the sphenopalatine artery.

Classically, ligation of the AEA is performed with an external Lynch-type incision by exposing the AEA between the periorbita and the lamina papyracea[2]. This technique has significant safety risks and poor cosmetic outcome due to a large resultant scar[1]. Other approaches include a transcaruncular incision and an endoscopic approach, both of which pose safety risks to the canalicular system and lamina papyracea, respectively[3,4].

The Nunery technique is a transcutaneous medial canthal tendon incision of the medial orbit that provides exposure of the medial wall and nasal bones without the large resultant scar and risk of damage to the canalicular system seen with other approaches[5].

Methods: We present a case report in which a transcutaneous medial canthal tendon incision, or the Nunery technique, is utilized to perform AEA ligation on an 18-year-old male in a joint surgery with otolaryngology. Sharp dissection was carried down to the medial canthal tendon followed by blunt dissection to elevate the lacrimal outflow structures laterally. The AEA was identified 24 mm from the anterior lacrimal crest for cauterization with bipolar cautery. To our knowledge, this is the first description of this surgical approach being used for AEA ligation.

Results: In this case, access to the medial orbit was obtained through the medial wall and nasal bone to successfully provide access to the AEA for ligation. Post-operatively, the patient has had no recurrence of epistaxis.

Conclusion: This case demonstrates a unique use of the Nunery incision as well as a novel surgical approach for performing AEA ligation in cases of refractory epistaxis. This surgical approach provides excellent exposure to the medial orbital wall, nose, and orbital apex with an excellent safety and cosmetic profile in comparison to the Lynch, transcaruncular and endoscopic approaches.

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Parvimonas Micra and Fusobacterium Nucleatum Brain Abscesses Presenting as Painful Blind Eye: A Case Report and Review of Literature

Kimberly Seamon[1], Sophie Saland[1], Jiawei Zhao[2], Timothy McCulley[1], Ying Chen[1]
[1]Ruiz Department of Ophthalmology & Visual Sciences, McGovern Medical School, University of Texas Health Science Center at Houston, Houston, Texas, United States, [2]Annapolis, Maryland, United States

Introduction: Brain abscess is a rare but serious infection with a classic presentation of fever, headache, and focal neurological deficits. However, only one-fifth of patients present with this classic triad. Common clinical manifestations include signs and symptoms of increased intracranial pressure such as altered mental status, headache, nausea, and/or vomiting. Only a few reports have described brain abscesses that presents with isolated ophthalmologic findings, typically limited to vision loss, diplopia, or papilledema. We present a case of multiple brain abscesses initially manifesting as a painful blind eye without signs of ocular or periocular inflammation.

Methods: This is a single-patient case report with longitudinal clinical follow-up. Clinical examination, ophthalmic imaging, and neuroimaging including magnetic resonance imaging (MRI) and magnetic resonance venography (MRV) were performed. Microbiologic cultures were obtained following neurosurgical intervention. The patient was managed with surgical source control and prolonged intravenous antimicrobial therapy. A focused literature review was also conducted to contextualize the clinical presentation and microbiology.

Results: A 56-year-old monocular male with remote right ocular trauma presented with isolated right eye pain and no signs of ocular inflammation. Initial ophthalmic evaluation revealed phthisis bulbi without acute findings. Within days, the patient developed contralateral orbital cellulitis and acute neurologic deficits. Neuroimaging demonstrated multiple right temporal lobe abscesses, subdural empyema, cavernous sinus thrombosis, and superior ophthalmic vein thrombosis. Urgent craniotomy was performed, and cultures grew *Parvimonas micra* and *Fusobacterium nucleatum*, suggesting an odontogenic source. Treatment with intravenous ceftriaxone and metronidazole resulted in improvement of neurologic and ophthalmologic findings. Long-term complications included seizures, cognitive impairment, and focal neurologic sequelae.

Literature review demonstrates that isolated ocular findings as the initial presentation of brain abscess are exceedingly rare, with reported manifestations including visual field defects, diplopia, ophthalmoplegia, and orbital inflammation. *Parvimonas micra*–associated brain abscesses are infrequently reported, with fewer than 20 cases described in the literature, and multiple abscesses occurring in a minority of cases, typically in the setting of bacteremia.

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Conclusion: This case underscores an unusual ophthalmologic presentation of polymicrobial brain abscess and expands the limited literature on *Parvimonas micra* intracranial infections. Clinicians should maintain a high index of suspicion for intracranial pathology when ocular pain is disproportionate to examination findings, as early diagnosis and multidisciplinary management are critical to reducing morbidity and mortality.

Figure 1. Clinical photograph obtained during emergency department presentation demonstrating right phthisis bulbi and new-onset left periorbital erythema, edema, and chemosis.

Figure 2. MRI demonstrating 0.7 cm extra-axial collection along the right occipital/temporal convexity with diffusion restriction compatible with subdural empyema.

Figure 2A. Axial view T1 post-contrast image

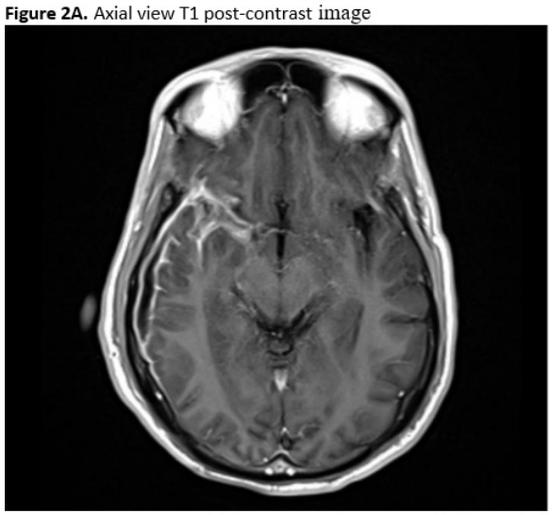

Figure 2B. Axial view DWI resolve trace image

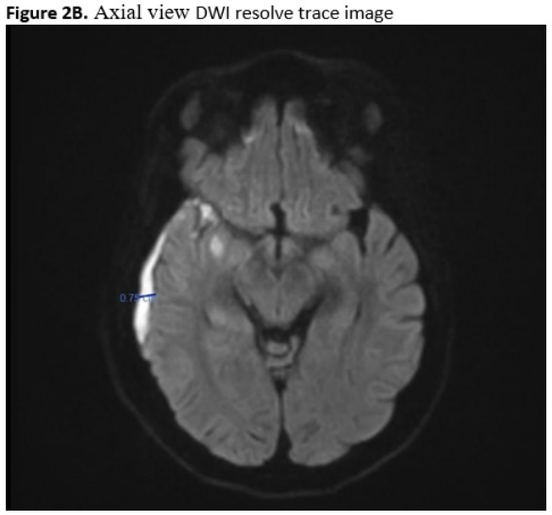

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Figure 3. MRI demonstrating filling defect and lack of complete enhancement of bilateral cavernous sinuses with bulking of the bilateral cavernous sinuses consistent with cavernous sinus thrombosis.

Figure 3A. Axial view T1 fat-saturated post-contrast image

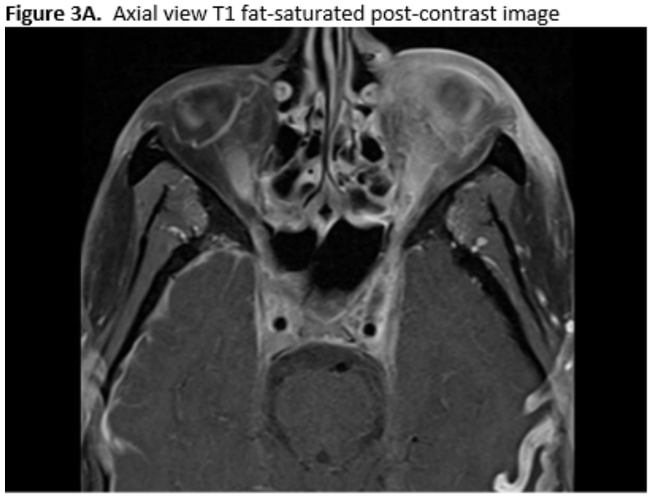


Figure 3B. Coronal view T1 fat-saturated post-contrast image

Figure 4. MRI demonstrating asymmetric enlargement and lack of opacification of the right superior ophthalmic vein compatible with superior ophthalmic vein thrombosis.

Figure 4A. Axial view T1 fat-saturated post-contrast image

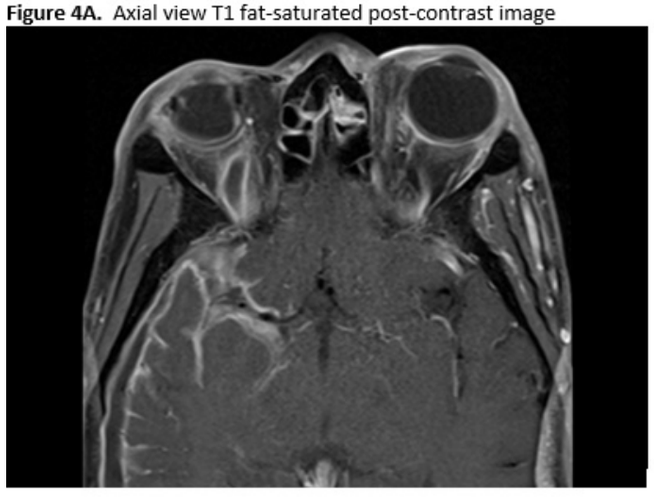
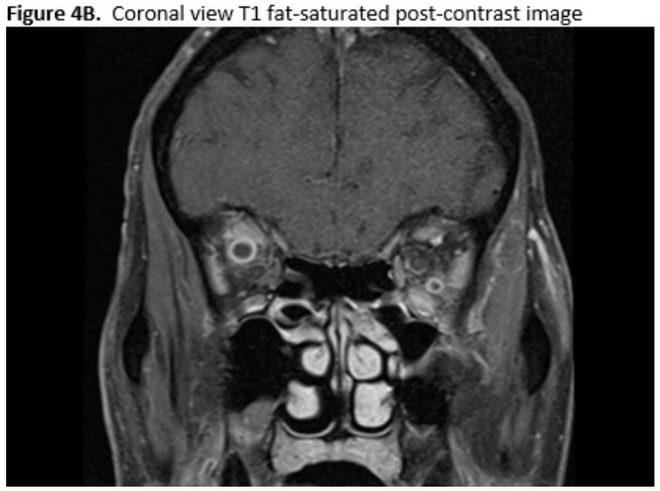


Figure 4B. Coronal view T1 fat-saturated post-contrast image



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Rapidly Progressive Odontogenic Periorbital and Orbital Necrotizing Fasciitis Associated with Streptococcus Anginosus Group

David Kelly[1], Nickisa Hodgson[1], Jonathan Lu[1], Bryan Winn[1,2]
[1]*Department of Ophthalmology, University of California, San Francisco, San Francisco, California, United States,* [2]*Ophthalmology Service, San Francisco Veterans Affairs Medical Center, San Francisco, California, United States*

Introduction: Orbital necrotizing fasciitis is a rare but vision-threatening condition requiring immediate recognition and aggressive multidisciplinary management. *Streptococcus anginosus* group, a facultative anaerobe with a known propensity for abscess formation, is increasingly recognized as a virulent pathogen in odontogenic and orbital infections and is capable of gas production[1–6]. We present a case of rapidly progressive odontogenic periorbital and orbital necrotizing fasciitis caused by *S. anginosus* group to highlight a reproducible diagnostic pattern with important clinical implications.

Methods: Single-patient case report describing clinical presentation, imaging evolution, microbiology, surgical management, and outcome.

Results: A 22-year-old non-diabetic male with a history of episodic heavy alcohol use was transferred from an outside hospital with a nine-hour history of rapidly progressive left periorbital edema, erythema, and pain following two weeks of sinus congestion. Initial visual acuity was 20/20 with restricted extraocular motility. Outside hospital computed tomography (CT) imaging demonstrated severe periorbital and orbital inflammation with a large isolated pocket of gas confined to the orbital soft tissues, without gas in the paranasal sinuses, and associated maxillary and ethmoidal sinusitis. Orbital emphysema in the setting of sinus disease was entertained[7]. The patient was started on broad spectrum antibiotics.

On arrival, elevated intraocular pressure and signs of orbital compartment syndrome prompted emergent lateral canthotomy and cantholysis, followed by repeat in-house CT imaging. During the interval between decompression and imaging review, visual acuity declined to 20/400. Repeat CT demonstrated progression of orbital inflammation with evolution to multiple discrete intraconal and extraconal gas pockets, concerning for an active gas-producing infection rather than orbital emphysema. Imaging also revealed a previously unrecognized, clinically asymptomatic periodontal abscess with extension into the maxillary sinus and associated bony dehiscence. Based on clinical deterioration and evolving imaging findings, the patient was taken emergently to the operating room. Antibiotic coverage was broadened to vancomycin, meropenem, clindamycin, and metronidazole.

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Intraoperatively, extensive necrotizing lipolysis of orbital soft tissues was encountered, with necrosis not strictly following classic fascial planes, necessitating aggressive debridement. Vision returned to baseline postoperatively. Intraoperative wound cultures obtained on two occasions grew *Streptococcus anginosus* group as the sole pathogen; blood cultures obtained at the outside hospital grew only the same organism. The isolate demonstrated susceptibility to penicillin, ceftriaxone, cefotaxime, levofloxacin, and vancomycin, with resistance to clindamycin and erythromycin, including inducible clindamycin resistance. The patient required two additional debridements and odontogenic source control via dental extraction, followed by wound closure with excellent visual and functional recovery.

Conclusion: This case underscores a pattern of rapidly progressive odontogenic periorbital and orbital necrotizing fasciitis associated with *Streptococcus anginosus* group. Interval progression of orbital inflammation and gas on serial imaging, localization of gas to orbital tissues, vision loss despite prompt decompression, and early identification of an asymptomatic odontogenic source were critical diagnostic features. Similar clinical trajectories—beginning with odontogenic infection, progressing through sinusitis, and culminating in rapid, vision-threatening orbital inflammation—have been reported in other cases involving *S. anginosus*, suggesting a reproducible pathogenic pattern rather than an isolated event. Importantly, the presence of soft tissue gas should not be assumed to indicate anaerobic or polymicrobial infection, as monomicrobial *S. anginosus* can produce gas and cause fulminant necrotizing disease.

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Teprotumumab with Extended Dose Intervals in Thyroid Eye Disease

Angela Oh[1], Keytiana Hempstead[1], Jordan Cornwell[1], Katherine Lucarelli[1,2], Regina Ramos[1], Tatiana Rosenblatt[1], Frank Mei[1], Daniel Rootman[3]
[1]UCLA Stein Eye Institute, Los Angeles, California, United States, [2]Aurora, Colorado, United States, [3]UCLA Stein Eye Institute, UCLA Stein Eye Institute, Los Angeles, California, United States

Introduction: Teprotumumab is an effective biologic therapy for thyroid eye disease (TED); however, post-treatment regression and dose related side effects can limit overall rehabilitation. One approach to balance these completing realities is to extend the inter-dose interval to maintain treatment gains while reducing infusion burden and side effects.

Methods: In this cross-sectional cohort study, TED patients who underwent extended interval or modified dosing of teprotumumab were included. Demographic and clinical variables including Clinical Activity Score (CAS), exophthalmometry measurements, motility and strabismus exam, and evidence of dysthyroid optic neuropathy were collected at multiple time points for each patient.

Results: Five patients were included (mean age 60.8 years, range 49-80, 40% female). Four patients completed a course of teprotumumab at standard three-week intervals, followed by improvement and then regression, and prolonged interval dosing of teprotumumab was initiated. The remaining patient was started on a low dose extended interval regimen in the first course of teprotumumab. Three patients were managed with teprotumumab due to persistent or recurrent dysthyroid optic neuropathy. Inter-dose interval ranged from four weeks to three months. Side effects included muscle cramps, diarrhea, brittle fingernails, alopecia, fatigue, and high frequency hearing loss. Patients noted that side effects were more tolerable and less severe during the second round of treatment as well as with extended intervals. All patients demonstrated stability of symptoms including subjective diplopia, as well clinical markers of proptosis and strabismus without regression at last follow up on extended interval dosing.

Conclusion: Prolonging infusion intervals of teprotumumab maintained symptom control while reducing side effects and treatment burden, suggesting a potential strategy for select patients with recurrent or severe TED. An individualized Teprotumumab dosing strategy may benefit patients by extending treatment intervals to maintain symptom control and reduce adverse effects.

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Geographic Accessibility of Ocularists for Pediatric Patients in the United States

Brittany Wong[1], Cat Burkat[2]
[1]Department of Ophthalmology, University of Rochester, Flaum Eye Institute, Rochester, New York, United States, [2]Department of Ophthalmology & Visual Sciences, University of Wisconsin-Madison, Madison, Wisconsin, United States

Introduction: For children with congenital or acquired anophthalmia and microphthalmia, custom ocular prostheses can play a valuable role in promoting both orbital growth and psychosocial development. Access to ocularists is particularly key for pediatric patients who benefit from early intervention and regular follow up for continued prosthesis modification.[1,2] However, National Examining Board of Ocularists registry currently includes just 130 board-certified ocularists in the United States. We sought to investigate the geographic distribution of ocularists in the United States to better understand access to this aspect of pediatric oculoplastic care.

Methods: Online search of American Society of Ocularists and National Examining Board of Ocularists registries of members in the United States (search performed January 2026) and all ranked hospitals on 2025-2026 US News and World Reports Best Children's Hospitals list by region. Ocularist locations were identified by online address or personal correspondence; satellite or travel locations specified as visited less than monthly were not included. Distance (miles, mi) from hospital to nearest ocularist was determined using the Google Maps measuring tool.

Results: A total of 204 ocularist locations were identified. No permanent locations were listed in Delaware, Hawaii, Mississippi, Montana, Vermont, or Wyoming. Eleven (5.4%) locations were associated with a hospital system. The 2025 US News and World Reports ranks a total of 82 children's hospitals by region (Pacific: 10; Rocky Mountain: 2; Southwest: 7; Midwest: 24; New England: 2; Mid-Atlantic: 18; Southeast: 19). The average distance between a children's hospital and the nearest ocularist was 8.39 miles (range: 0 to 142). Sixteen (19.5%) hospitals had an ocularist within 1 mi, 69 (84.1%) within 10 mi, 80 (97.6%) within 20 mi, and 80 (98.8%) within 100 mi.

Conclusion: Ocular prostheses can play a key role in the care of pediatric oculoplastic surgery patients. Children receiving care at most leading pediatric hospitals in the United States have access to an ocularist within 10 miles, and nearly all within 20 miles. However, those who live outside these regions may need to travel significantly longer distances and several states lack regular ocularist services. Additional investigation is being performed into the role/accessibility of travel clinics which offer the potential to significantly extend care. Collaboration between oculoplastic surgeons, pediatric ophthalmologists, and ocularists is central to optimizing outcomes for children with anophthalmia and microphthalmia.

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Pediatric Lower Eyelid Melanoma Arising in a Nevus

Sudarshan Srivatsan, Amy Huang, Katherine Lucarelli, Caroline Vloka, DJ Ozzello, Matthew Lam, Nikhil Mandava, Eric Hink, Sophie Liao
Department of Ophthalmology, Sue Anschutz-Rodgers Eye Center, University of Colorado, Aurora, Colorado, United States

Introduction: Pediatric melanocytic eyelid lesions are rare and frequently benign in clinical appearance. Distinguishing malignant melanoma from other melanocytic lesions in children is challenging, particularly when histopathologic features overlap and anatomic constraints limit surgical margins. We report a pediatric lower eyelid melanocytic lesion with malignant features, highlighting diagnostic ambiguity, margin selection, reconstructive considerations, and adjuvant management decision-making.

Methods: Case report.

Results: A 7-year-old male with no significant medical history presented with a long-standing, asymptomatic lower eyelid lesion anterior to the canaliculus that demonstrated interval growth. Clinical examination by an outside ophthalmologist described a benign-appearing nevus, and the lesion was excised without preoperative imaging. Histopathologic evaluation demonstrated a biphasic atypical melanocytic proliferation concerning for melanoma arising in association with a nevus. Accurate assessment of lesion depth was precluded by tangential sectioning and lack of specimen orientation.

The patient was referred for oculoplastic evaluation. Multidisciplinary review confirmed the lesion originated from eyelid skin rather than conjunctiva. Cross-sectional imaging demonstrated no regional or distant disease. Given the patient's age and overlapping features between pediatric melanoma and melanocytic mimickers such as melanocytoma, additional immunohistochemical, cytogenetic, and comprehensive molecular testing was performed. Findings included diminished p16 expression, BRAF positivity, RREB1 and CCND1 gains on fluorescence in situ hybridization, a CHEK2 mutation, and high tumor mutational burden, supporting a diagnosis of melanoma arising in a nevus. However, Breslow depth remained indeterminate.

Given diagnostic uncertainty, proximity to the lacrimal drainage system, and the need to balance oncologic control with reconstructive morbidity, wide local excision with 5-mm margins and sentinel lymph node biopsy was performed. Reconstruction required canalicular repair with silicone monocanalicular lacrimal stenting, posterior lamellar reconstruction using a Hughes tarsoconjunctival flap, and anterior lamellar skin grafting. Sentinel lymph node biopsy was negative for melanoma. Final pathology demonstrated residual compound nevus without residual melanoma, retained p16 expression, and no melanoma in surgical margins or lymph nodes.

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Based on final staging (T1, N0, M0), no adjuvant systemic therapy was recommended. The patient was enrolled in clinical surveillance with dermatologic, genetic, and lymph node follow-up. Long-term follow-up demonstrated stable eyelid position with satisfactory functional and cosmetic outcome.

Conclusion: Pediatric eyelid melanocytic lesions may appear clinically benign yet demonstrate malignant features requiring advanced molecular diagnostics for accurate classification. Lack of specimen orientation may preclude reliable depth determination, complicating decisions regarding surgical margins, reconstruction, and adjuvant therapy. Multidisciplinary evaluation is essential to guide oncologic management while minimizing functional morbidity in anatomically constrained pediatric eyelid lesions.

Figure 1. Pediatric lower eyelid melanocytic lesion demonstrating benign clinical appearance at presentation (A), preoperative margin planning with 5-mm margins in an anatomically constrained lower eyelid (B), full-thickness defect following wide local excision requiring Hughes tarsoconjunctival flap and skin graft reconstruction (C), and stable long-term postoperative functional and cosmetic outcome (D).

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Severe Amblyogenic Ptosis as Presenting Symptom of Linear Morphea en Coupe de Sabre

Antonios Dimopoulos, Jill Foster, Kenneth Cahill, Jessica Crawford, Cameron Nabavi
Ophthalmology, Central Ohio Eye and Plastic Surgery, Eye Center of Columbus; Nationwide Children's Hospital; The Ohio State University, Columbus, Ohio, United States

Introduction: Linear morphea en coupe de sabre is a rare localized form of scleroderma that typically presents in childhood as a linear band of dermal and subcutaneous fibrosis involving the frontoparietal scalp[1]. Its incidence has been estimated at approximately 0.3 per 100,000 individuals based on a 33-year epidemiologic study of localized scleroderma[2]. Although traditionally considered a cutaneous disorder, en coup de sabre is increasingly recognized as a multisystem disease with the potential for ophthalmic involvement. Reported ocular and adnexal manifestations include eyelid skin fibrosis, uveitis, eyelid retraction, ptosis, lash abnormalities, enophthalmos, extraocular muscle involvement, and orbital fat atrophy[2,3]. Data from a large multi-center, multinational study identified 750 cases of juvenile localized scleroderma, of which 24 (3.2%) had significant ocular and adnexal involvement that included eyelid/eyelash abnormalities, uveitis, episcleritis, strabismus, and refractive errors[4].

While eyelid involvement has been described, severe functional ptosis is uncommon as an early presenting feature and may delay diagnosis, particularly in the absence of prominent cutaneous findings.

Methods: We present a case report of a pediatric patient presenting with severe ptosis due to linear scleroderma en coupe de sabre.

Results: A 4-year-old female presented with progressively worsening, painless right upper eyelid ptosis (Figure 1). Examination demonstrated severe ptosis with decreased levator function, but with full extraocular motility and symmetric exophthalmometry. Subtle cutaneous findings were present, including thinning of the bilateral temporal skin and a focal area of scalp alopecia (Figure 2 and 3). Magnetic resonance imaging (MRI) of the orbits demonstrated mild asymmetric enhancement of the right upper eyelid and wispy linear enhancement within the right intraconal fat adjacent to the optic nerve sheath (Figure 4a) as well as atrophy of the left frontoparietal scalp. Targeted orbital ultrasound performed by interventional radiology revealed no vascular lesion.

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Laboratory evaluation including a myasthenia gravis antibody panel, scleroderma-specific antibodies, anti-centromere antibodies, and inflammatory markers was unremarkable except for a positive anti-nuclear antibody. The patient underwent frontalis suspension ptosis repair with silicone sling for functional visual impairment (Figure 5). Repeat MRI demonstrated stable intraconal findings favored to represent focal orbital fat atrophy in the setting of linear scleroderma. Dermatologic biopsy of the alopecic scalp lesion demonstrated sclerosing dermatitis. The patient was initiated on systemic immunosuppression with methotrexate and pulse-dose corticosteroids by the rheumatology service according to the Consensus Treatment Plans by the Childhood Arthritis and Rheumatology Research Alliance, with plans for transition to subcutaneous therapy.

Conclusion: This case highlights severe unilateral ptosis as an uncommon and early presenting manifestation of linear scleroderma en coup de sabre in a young child, preceding definitive diagnosis and systemic treatment. The combination of eyelid dysfunction, subtle cutaneous findings, and orbital imaging changes underscores the importance of maintaining a high index of suspicion for inflammatory or fibrosing disorders in pediatric ptosis. Early multidisciplinary evaluation is critical, as prompt recognition may facilitate timely initiation of immunomodulatory therapy and prevent progression of ocular and extracutaneous involvement.

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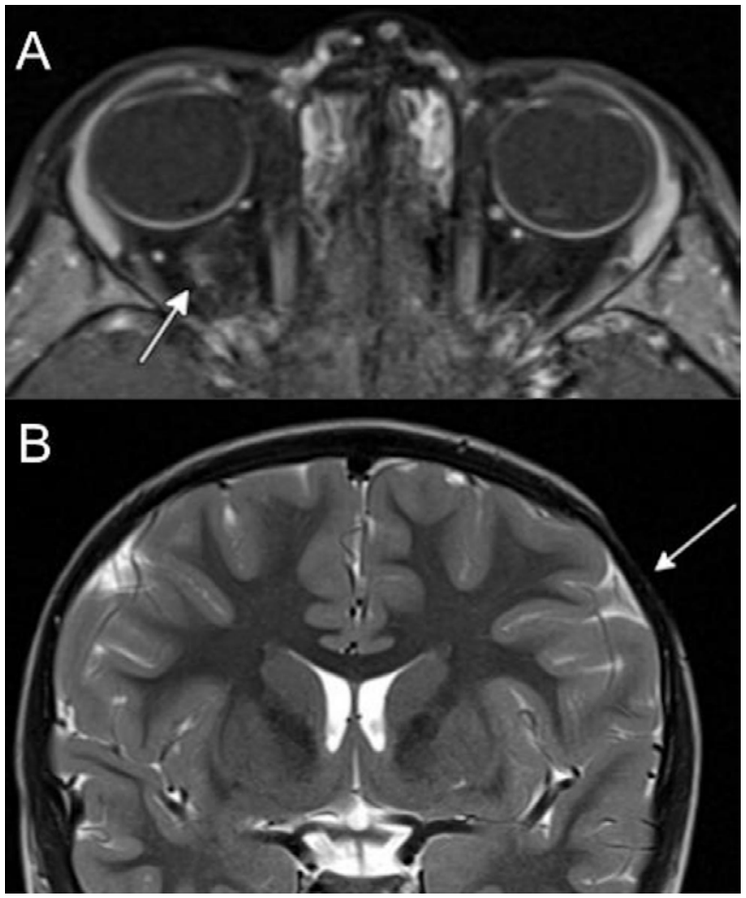

Figure 5

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Industry Funding for Teprotumumab and Medicaid Prescribing Patterns

Michael Han[1], Katerina Tori[2], Ayaka Fujihashi[2], Hui Bae Lee[1]
[1]Oculofacial Plastic and Orbital Surgery, Indianapolis, Indiana, United States, [2]The Eugene and Marilyn Glick Eye Institute, Indiana University Health, Indianapolis, Indiana, United States

Introduction: The advent of teprotumumab treatment for thyroid eye disease showed promising immediate results, but has demonstrated weak durability and significant cost to the healthcare system.[1] Oculofacial plastic surgeons have diverse relationships with pharmaceutical companies, such as those with a role of delivering teprotumumab to market.[2] Industry funding has correlated with prescribing patterns for costly medications of uncertain benefit in other fields of medicine.[3] The goal of this study is to characterize the relationship between the number of Medicaid claims and industry funding patterns to members of the American Society for Ophthalmic Plastic and Reconstructive Surgery (ASOPRS).

Methods: Annual statistical data were obtained from the Open Payments Database (openpaymentsdata.cms.gov), for Horizon Therapeutics from 2020-2023, and Amgen Inc. for 2024 after its acquisition of Horizon. Payment recipients were cross referenced to the list of members in the ASOPRS directory using fuzzy name matching and then manual review. The data for Medicaid claims for teprotumumab were gathered from State Drug Utilization Data (data.medicaid.gov). The same was attempted for Medicare data but no data for 2024 was available. The number of claims were adjusted using estimated national population totals from 2020-2024 from the United States Census Bureau (census.gov) to control for population size.

Results: The sum of total funds delivered to ASOPRS members started at $822,957.61 in 2020 and increased to a peak of $2,016,871.45 in 2023, after which there was an overall decrease in funding to $917,765.80 the following year. Meanwhile, the number of Medicaid claims for teprotumumab started at 5.1 claims per 100k people and increased to a peak of 44.4 claims per 100k people in 2022, after which the number of claims stabilized to 43.9 claims per 100k in 2024.

Conclusion: The increase of claims can be attributed to the natural adoption of teprotumumab into market, but the rapidity of growth could partially be explained by industry funding to ASOPRS members, who often take a central role in the management of thyroid eye disease. The plateau in prescribing after 2022 may be due to disappointing long term durability of efficacy or relative market saturation as practitioners defined teprotumumab's role in their armamentariums of medical treatments for thyroid eye disease. These negatives may have resulted in the relative decrease of direct industry funding to ASOPRS members in 2024 compared to prior years. Significant variation exists between states in both overall funding and Medicaid claims, possibly due to regional policies and preferences.

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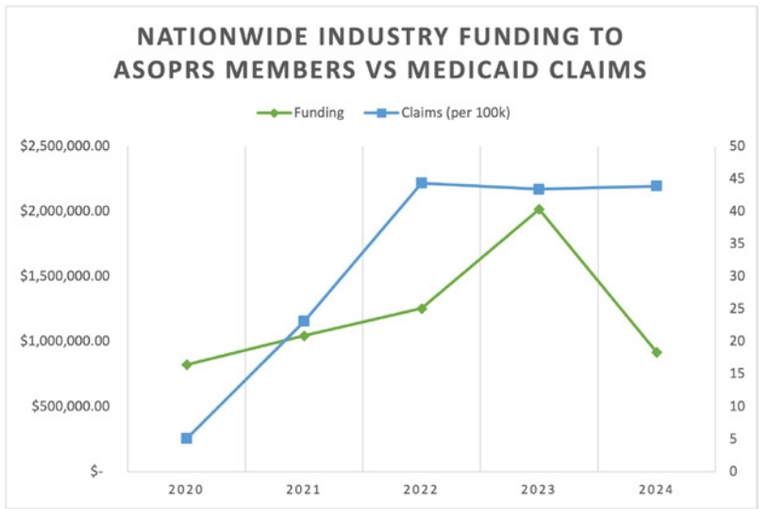
Figure 1



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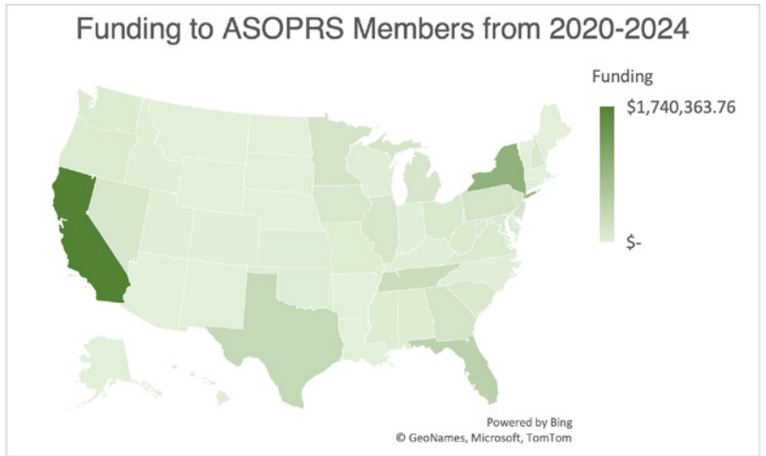

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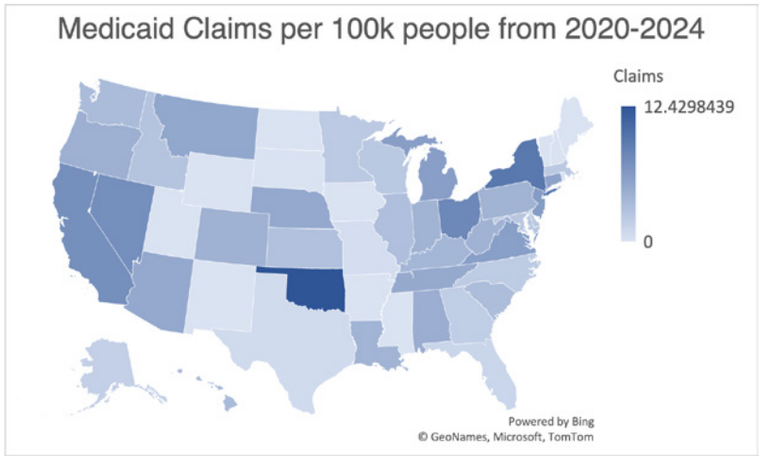

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External Dacryocystorhinostomy through Cosmetic Midface Rhytidectomy Incisions

Daniel Azzam, Yosur Alsulaiman, Austin Cho, Jeremiah Tao
Division of Ophthalmic Plastic and Reconstructive Surgery, Gavin Herbert Eye Institute, University of California Irvine, Irvine, California, United States

Introduction: The innovation of scar-minimizing approaches to external DCR may provide the greatest combination of functional success and cosmesis. Previously reported incisions include conventional naso-jugal, W-incision,[2] periciliary V-incision,[3] subciliary,[4,5] transconjunctival,[6] or retrocaruncular.[7] However, disadvantages are variable visible scarring, technical difficulty, limited surgical exposure, conjunctival granulomas, and finally, creation of a wound that would otherwise not be present.

Here, we present a novel external DCR technique via midface rhytidectomy for effective management of NLDO and cosmetic facial enhancement.

Methods: A retrospective consecutive case series of patients with aesthetic concerns (midface descent, tear trough hollowing, and aversion to visible scars) and concurrent NLDO underwent cosmetic bilateral midface rhytidectomy (external cheek lift and lower blepharoplasty) through which the external DCR was concurrently performed and camouflaged. A lower eyelid subciliary incision was fashioned (Figure 1A) and the arcus marginalis was realeased to mobilize the skin and muscle to expose the lacrimal sac fossa. An external DCR was performed in the usual manner as shown in Figure 2A-D (an osteotomy site was created with a burr and rongeurs, and posterior mucosal flaps were anastomosed; bicanalicular silicone intubation was performed, and the anterior mucosal flaps were secured). Subsequently, the cosmetic midface portion proceeded with orbital fat redraping (Figure 1B), and lateral canthal anchoring (Figure 1C) and midface orbicularis muscle flap resection and securing (Figure 1D) to the lateral rim periosteum and temporalis fascia.

Results: A total of 6 patients were identified. The follow-up period was a minimum of 5 months. Figure 3 demonstrates representative pre- (3A-C) and postoperative (3D-F) results of the cosmetic midface rhytidectomy approach. The procedure was associated with positive functional and aesthetic outcomes and no postoperative complications, including 0% revision rate. While a well-camoulflaged subciliary scar was present, the technique obviated a medial canthus or nasal cutaneous scar in all cases. Tear trough deformities, lower eyelid retraction, midface descent, skin elasticity, and symptomatic epiphora were improved in all cases.

Conclusion: Cosmetic external DCR via midface rhytidectomy was effective in this series of aesthetically-minded NLDO patients seeking aesthetic enhancement and relief of epiphora.

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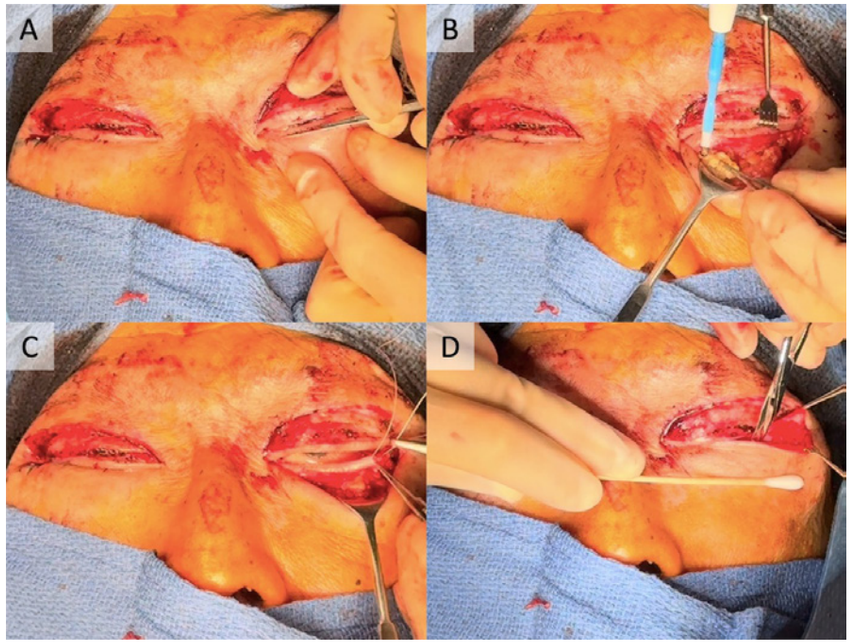
Figure 1



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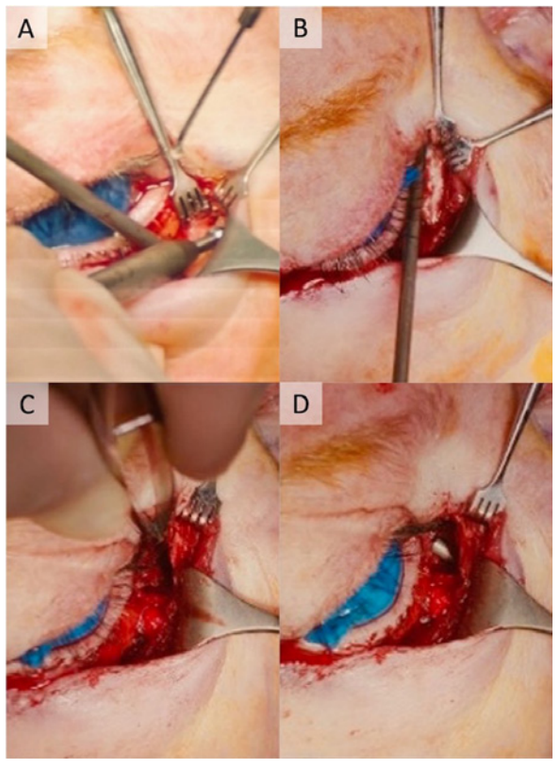

Figure 3

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Case Report: Preservation and Replantation of Avulsed Eyelid

Celestine Gregerson[1,2,3], Trisha Miglani[4], Emily Mei[5], Michael Kazim[1]

[1]Edward S. Harkness Eye Institute, Columbia University Irving Medical Center, New York, New York, United States, [2]Department of Ophthalmology, Weill Cornell Medicine, New York, New York, United States, [3]Department of Ophthalmology, Manhattan Eye Ear and Throat Hospital, Northwell Health Eye Institute, New York, New York, United States, [4]Department of Ophthalmology, New York University Langone Health, New York, New York, United States, [5]Weill Cornell Medicine Medical College, New York, New York, United States

Introduction: Full thickness eyelid avulsion injuries represent reconstructive challenges due to the potential for unpredictable functional and cosmetic result. Dog bite injuries cause a combination of sharp laceration and blunt crush injury, increasing the risk of tissue ischemia, contamination, and necrosis. Literature regarding replantation of avulsed eyelid tissue is limited, although several case reports have described success. The authors aim to contribute to the limited literature on this topic by reporting a case of short-term preservation and replantation of an avulsed eyelid.

Methods: Case report

Results: A 27-year-old woman with a history of Chiari malformation type 1, benign cardiac murmur, and eczema presented to the emergency department (ED) two hours after a dog bite to her right face, during which she sustained full-thickness avulsion of the medial right upper eyelid. The patient had retrieved the avulsed eyelid from the floor, wrapped the tissue with a towel on ice within 10 minutes of the injury, and brought this with her to the hospital. On examination, visual acuity was 20/50 OD and 20/20 OS. Intraocular pressures, pupillary exam, and extraocular motility were normal. External exam demonstrated full-thickness avulsion of the medial and central right upper eyelid with absence of the upper punctum (Figure 1). Intravenous ampicillin-sulbactam was initiated and recent tetanus vaccination was confirmed.

She underwent surgical repair approximately 3.5 hours after the initial injury. The preserved eyelid tissue, measuring 13 mm x 10 mm (Figure 2), and was noted to transect the ampulla of the punctum at the medial aspect. Eyelid replantation and punctal reconstruction was performed via a systematic and layered approach. A silicone monocanalicular lacrimal v stent was placed in the reconstructed punctum.

At follow-up 1 week later, the graft was in appropriate position with significant overlying granulation tissue and no evidence of frank necrosis or purulence. Two weeks following surgery, the patient returned after accidentally dislodging her stent, and a new silicone monocanalicular lacrimal stent was placed in the upper punctum. Four months following surgery, the stent was removed and her

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upper canalicular system was patent. Significant madarosis, contour irregularities, and pigmentary changes were noted, however the patient demonstrated preserved lid function with no retraction or lagophthalmos (Figure 3).

Conclusion: This case adds to the growing body of literature supporting immediate composite replantation as a viable and effective option for traumatic upper eyelid avulsion when tissue is promptly retrieved and appropriately managed. Prompt retrieval and cold preservation of the avulsed eyelid tissue, early surgical intervention, and canalicular stenting may contribute to favorable early outcomes.

Figure 1

Figure 2

Figure 3

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Pigmented Oncocytoma of the Caruncle Mimicking Melanoma

Kimberly Nguyen[1], Hillary Stiefel[1], Natalie Homer Hoesly[1]
[1]*Ophthalmology, Oregon Health & Science University, Portland, Oregon, United States*

Introduction: Lesions of the caruncle are relatively rare, representing 1.1% of all specimens sent to ocular pathology,[1] with oncocytomas comprising only 1.8% of all caruncular lesions.[2] While oncocytomas typically appear as red-blue or orange-tan lobulated or cystic lesions, atypical clinical features of overlying keratinization, prominent feeder vessels, pedunculated pattern, superficial lobulations, and pigmentation, may raise concern for malignancy. Herein is presented a unique case of a pigmented caruncular oncocytoma, which has been rarely reported in the literature.

Methods: Case Report.

Results: A 69-year-old female presented with a pigmented lesion of the left caruncle, noticed one month prior to presentation. She reported gradual darkening of pigmentation, but otherwise stable lesion size. Past medical, surgical, and ocular history were unremarkable, with a negative personal or family history of skin malignancy. Physical examination revealed a 4 mm elevated, pigmented lesion of the left caruncle with overlying yellow deposits and two adjacent prominent, tortuous vessels consistent with feeder vessels (Figure 1). The remainder of the ophthalmologic examination was unremarkable. Clinical findings were found to be concerning for malignancy. Computed tomography (CT) of the orbits demonstrated an ill-defined soft tissue mass in the area of the left caruncle without deeper orbital extension (Figure 2). The patient underwent left anterior orbitotomy and excisional biopsy of a subconjunctival, darkly pigmented cystic mass. Histopathologic evaluation demonstrated an encapsulated lesion consisting of nests and cords of polyhedral cells with abundant granular, eosinophilic cytoplasm and small nuclei. (Figure 3A). Melan A staining revealed basal and dendritic melanocytes without atypical features (Figure 3B), consistent with a diagnosis of a pigmented oncocytoma. Post-operative examination revealed a well-healed caruncle without lesion recurrence during 6-month clinical surveillance.

Conclusion: Oncocytomas of the caruncle most commonly present in females in their seventh decade of life[3] and result from the proliferation of modified epithelial cells of the accessory lacrimal glands. Pigmented oncocytomas of the caruncle have only previously been documented in two case reports, including a 69-year-old female with a partially pigmented lobulated right caruncular lesion and an 81-year-old female with a painless dark brown-blue subepithelial dome-shaped mass, both confirmed to be an oncocytoma on histopathology.[2,3] Pigmented oncocytomas may appear clinically indistinguishable from melanoma. Melanoma of the caruncle is potentially life threatening, with higher rates of metastasis associated with this location.[1,3] Additionally, untreated oncocytomas carry a

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reported 5-10% risk of malignant transformation to oncocytic carcinomas,[4] which has been associated with orbital extension and lymph node metastasis.[5] Thus, any caruncular lesion with high risk clinical features, such as pigmentation, warrants histopathologic analysis, particularly given close proximity to the medial orbit.[2,3] Treatment of caruncular oncocytomas involves complete surgical excision, which is curative.[4]

Although the majority of pigmented caruncular lesions are benign in nature, it is important to pursue histopathologic analysis when atypical features that may mimic malignant lesions are present.

Figure 1

Figure 2

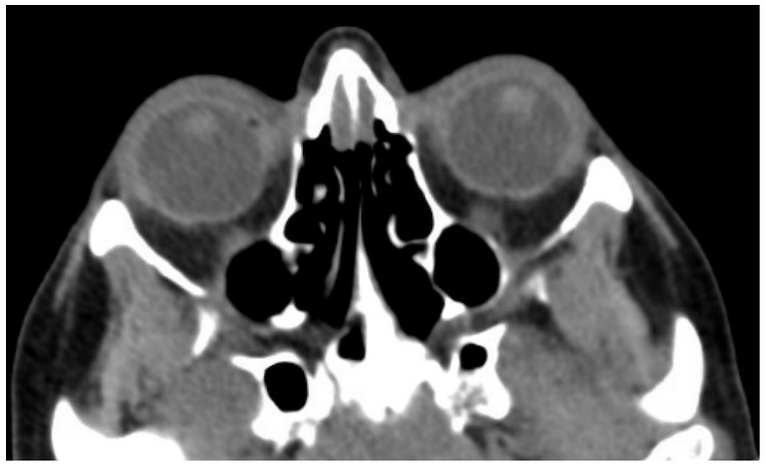
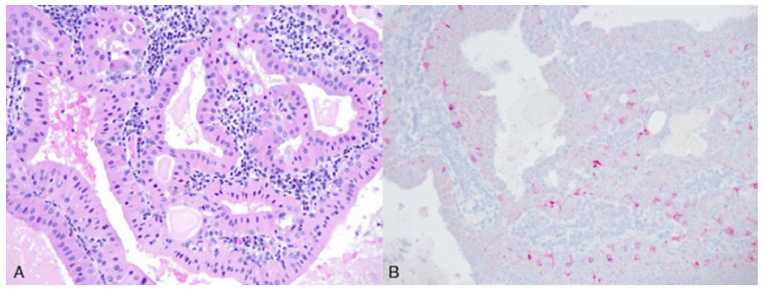


Figure 3



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Efficacy of Teprotumumab in Thyroid Eye Disease Patients with Short Disease Duration and Low Clinical Activity Score

Sri Meghana Konda[1], Annika Samuelson[2], Darren Chen[2], Sierra Ha[2], Tatiana Rosenblatt[3], Amee Azad[1], Lisa Lin[4], Carolina Chiou[5], Natalie Wolkow[6], Nahyoung Grace Lee[1], Michael Yoon[1], Suzanne Freitag[1]

[1]Ophthalmic Plastic Surgery Service, Massachusetts Eye and Ear, Boston, Massachusetts, United States, [2]Department of Ophthalmology, Massachusetts Eye and Ear, Boston, Massachusetts, United States, [3]Ophthalmic Plastic Surgery Service, University of California Los Angeles, Los Angeles, California, United States, [4]Ophthalmic Plastic Surgery Service, Oculoplastics Wilmer Eye Institute, Baltimore, Maryland, United States, [5]Ophthalmic Plastic Surgery Service, Brown University, Providence, Rhode Island, United States, [6]Ophthalmic Plastic Surgery Service, David G. Cogan Laboratory of Eye Pathology, Massachusetts Eye and Ear, Boston, Massachusetts, United States

Introduction: The two pivotal randomized, double-masked, placebo-controlled clinical trials that led to U.S. Food and Drug Administration approval of teprotumumab in 2020 evaluated patients with active disease, defined by a Clinical Activity Score (CAS) ≥4 and symptom onset within nine months.[1,2] The aim of this study is to evaluate the efficacy of teprotumumab in a different cohort of TED patients with a low CAS and a < 24- month disease duration.

Methods: This retrospective study evaluated all patients who completed all 8 teprotumumab infusions at a single institution between April 1, 2020 and March 31, 2024. Inclusion criteria were a CAS < 4 and disease duration of < 24 consecutive months prior to initiation of teprotumumab. Primary outcome measures included change in proptosis (difference between median pre- and post-treatment exophthalmometry measurements), CAS response (difference between median pre- and post-treatment CAS score), and diplopia response (≥1-point improvement in Gorman diplopia score). Pre-treatment measurements were obtained at the visit immediately before teprotumumab initiation and post-treatment measurements were obtained at the first follow-up visit after completion of eight infusions. Pre- and post-measurements were compared using Wilcoxon signed-rank test, and statistical significance was defined as $p<0.05$.

Results: (Table 1) Of the one hundred ninety-eight patients who completed all 8 teprotumumab infusions, seven patients met the inclusion criteria. The mean age was 55.7 years. The majority were female and of self-reported White race (both 85.7%). Two patients (28.6%) had a history of smoking, although none were active smokers at the time of treatment. The median duration from date of first TED symptoms reported to date of initiation of teprotumumab was 8.53 months (range, 6.07 – 22.50 months). The median duration from new patient visit to date of teprotumumab initiation was 2.9 months (range, 1.23-12.63).

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Median exophthalmometry measurements decreased from 19.5 mm (IQR 5.5) pre-treatment to 16.75 (IQR 3.38) post-treatment ($p<0.05$ two-sided). The median pre-treatment and post-treatment CAS was unchanged at 2 (IQR 2.5; $p=0.63$ two-sided). Median diplopia scores improved from 2 (IQR 1.5) pre-treatment to 1 (IQR 1) post-treatment ($p=0.125$ two-sided).

Conclusion: In this cohort of low CAS, short duration TED patients treated with teprotumumab, there was a significant difference in pre- and post-teprotumumab proptosis, but no significant difference in Gormon diplopia score or CAS. The lack of change in CAS is likely due to a floor effect, as baseline levels were already low. Future studies are needed to better define the efficacy of teprotumumab in this subset of TED patients.

Table 1

Category	Variable	Value	Additional Information
Demographics	Mean age at teprotumumab initiation (years)	55.71	
	Sex (female)	85.71%	n = 6/7
	Race (white)	85.71%	n = 6/7
Treatment Characteristics	Median time from TED symptom onset to teprotumumab initiation (months)	8.53	Range: 6.07–22.5
	Median time from new patient visit to teprotumumab initiation (months)	2.9	Range: 1.23–12.63
Primary Outcomes	Median pre-treatment Hertel measurement (mm)	19.5	IQR 5.5
	Median post-treatment Hertel measurement (mm)	16.75	IQR 3.38
	Wilcoxon signed-rank test (Hertel) p <0.05		
	Median pre-treatment CAS	2	IQR 2.5
	Median post-treatment CAS	2	IQR 2.5
	Wilcoxon signed-rank test (CAS) p = 0.63		
	Median pre-treatment diplopia score	2	IQR 1.5
	Median post-treatment diplopia score	1	IQR 1
	Wilcoxon signed-rank test (Diplopia) p = 0.125		

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Ophthalmic Manifestations and Management of Gomez-Lopez-Hernandez Syndrome: A Systematic Review and Case Report Using Corneal Neurotization

Cat Burkat[1], Dana Wang[2]

[1]Oculoplastics, Orbital, & Cosmetic Facial Surgery; Department of Ophthalmology and Visual Sciences, University of Wisconsin-Madison, Madison, Wisconsin, United States, [2]Virginia Tech Carilion School of Medicine, Roanoke, Virginia, United States

Introduction: Gomez-Lopez-Hernandez syndrome (GLHS) is a rare neurocutaneous disorder characterized by trigeminal dysgenesis and anesthesia, alopecia, and rhombencephalosynapsis[1,2]. Ophthalmic manifestations in GLHS are common but have been inconsistently reported since the first case report in 1979[3-6]. This review summarizes the spectrum of ocular findings in GLHS and reported management strategies particularly focusing on the insensate cornea in the pediatric population. We also present a case of GLHS with ocular involvement treated with corneal neurotization, to inform clinical care and future case reporting.

Methods: A systematic search of major databases was performed using disease-specific and ophthalmic terms for dates between 1979-2025. Case reports and series with documented ophthalmic findings were included. Studies without new cases or reports that lacked ophthalmic documentation were excluded. 27 studies comprising of 51 unique patients were analyzed.

Results: Among the reported cases, most patients were pediatric with the average age at 8.1 years old. The most frequent ophthalmic abnormalities involved the ocular surface and motility. Corneal anesthesia was present in 27 patients and was commonly associated with neurotrophic keratitis, corneal ulceration, and scarring. 18 patients were reported to have corneal opacities that were often in the setting of habitual eye rubbing. Strabismus was reported in 31 patients, predominantly convergent, and was associated with side-to-side head movements. Less commonly reported findings include optic nerve hypoplasia, macular degeneration, retinal detachment, and orbital bands. Management focused on ocular surface protection with intensive lubrication, punctal plugs, amniotic membrane/bandage contact lenses, autologous serum drops, and surgical interventions such as a tarsorrhaphy. Our patient underwent corneal neurotization from the contralateral trigeminal nerve, which has not been reported for this condition of dysgenesis/agenesis.

Conclusions: Ophthalmic involvement in GLHS is highly variable with corneal anesthesia, neurotrophic keratitis, corneal opacifications, and strabismus being the most common findings. Early recognition, comprehensive ophthalmologic exams, and proactive ocular surface management are critical in preventing vision-threatening complications. Multidisciplinary care and caregiver education are essential as well. As corneal neurotization is more widely performed, the utility and success of the procedure in conditions of trigeminal nucleus dysgenesis is unknown.

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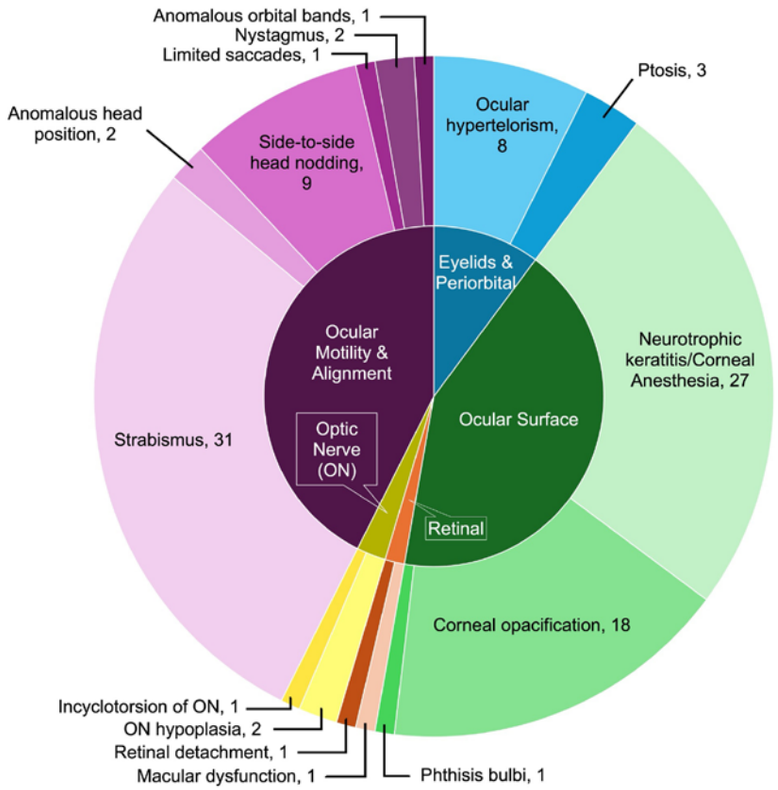

Figure 1. GLHS Ophthalmic Findings and Number of Reported Cases

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Pricing Transparency among American Society of Ophthalmic Plastic and Reconstructive Surgery Members

Kendall Goodyear[1,2], Nuha Arefin[3], Remigio Flor[2,1], Vikram Durairaj[2,1], Tanuj Nakra[2,1]

[1]TOC Eye and Face, Austin, Texas, United States, [2]Mitchel and Shannon Wong Eye Institute, Dell Medical School at the University of Texas at Austin, Austin, Texas, United States, [3]Dell Medical School at the University of Texas at Austin, Austin, Texas, United States

Introduction: Surgeons are often hesitant to list pricing on their websites due to concerns about price shopping, patient misunderstanding of pricing, and competitor comparisons. However, this can lead to front desk staff and other personnel who serve as initial points of contact frequently fielding high call volumes requesting pricing information. Studies demonstrate that pricing availability prior to appointments is important to many patients, and price transparency can actually align patient expectations while improving conversion rates.[1,2] Additionally, transparency may improve practice efficiency by attracting patients with realistic cost expectations.[2] This study evaluates the extent of public-facing price disclosure on practice websites among ASOPRS surgeons.

Methods: The ASOPRS website (www.oculofacialsociety.org) was queried using the "Find a Surgeon" tool with the location filter set to "United States," yielding 694 surgeons. After removing duplicates, 689 unique surgeons remained. Each surgeon was searched on Google using the phrase "*First Name Last Name* ASOPRS" to locate their practice website. Publicly available website information was reviewed for the presence of pricing information, pricing structure type (exact fees, starting prices, ranges, or membership models), presence of a dedicated pricing page, and associated practice characteristics (practice type, city, state). Data were recorded in a standardized spreadsheet.

Results: Of 689 unique American Society of Ophthalmic Plastic and Reconstructive Surgery (ASOPRS) surgeons identified, 94.3% (n=650) had an identifiable practice website. Among surgeons with websites, only 2.6% (n=17) displayed pricing information. Of these 17 ASOPRS websites, 47.1% (n=8) listed "starting at" prices, 23.5% (n=4) listed exact fees, 23.5% (n=4) listed price ranges, and 5.9% (n=1) used a package/membership pricing model. All practices displaying pricing were private practices, with 76.5% (n=13) in solo practice and 23.5% (n=4) in group practice. Geographically, the majority were located in the West (47.1%, n=8), followed by the Northeast (29.4%, n=5), South (17.6%, n=3), and Midwest (5.9%, n=1).

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Conclusion: Despite evidence that pricing transparency improves patient expectations, consultation efficiency, and conversion rates, the vast majority of ASOPRS surgeons do not publicly disclose pricing on their websites. This study found that fewer than 3% of surgeons with identifiable websites listed any pricing information, revealing a substantial gap between patient preferences and current practice patterns. These findings suggest that limited online price disclosure may contribute to inefficiencies for both patients and practices. Further systematic study is needed to quantify the administrative burden of pricing inquiries on front desk staff and evaluate the impact of price transparency on call volume and workflow efficiency. Greater adoption of structured pricing information on practice websites may reduce ancillary staff workload, improve consultation efficiency, and better align oculoplastic practices with contemporary patient expectations for accessible cost information.

Figure 1

ASOPRS Websites with Prices Listed		
Yes	2.60%	(n=17)
No	97.40%	(n=633)
Listed Price Type		
Starting at	47.10%	(n=8)
Exact Fee	23.50%	(n=4)
Price Range	23.50%	(n=4)
Package/Membership Only	5.90%	(n=1)
Practice Location		
Northeast	29.40%	(n=5)
Midwest	6.90%	(n=1)
South	17.60%	(n=3)
West	47.10%	(n=8)
Practice Type		
Group Private Practice	23.50%	(n=4)
Solo Private Practice	76.50%	(n=13)

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