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APHAKIA MANAGEMENT: COMPARATIVE OF IRIS-CLAW LENS WITH TRANSSCLERAL FIL-SUTURELESS SCLERAL FIXATION.

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Purpose: To evaluate predictive factors of visual outcomes and cystoid macular edema (CME) following two distinct surgical procedures for secondary IOL implantation without capsular support: Iris-claw lens and transscleral FIL- Sutureless Scleral fixation (SSF) IOL fixation. **Methods:** In this retrospective comparative study, two different sutureless IOL implantation techniques were compared in patients without capsular support. Best corrected visual acuity (BCVA) and outcomes were analyzed in 28 eyes of 28 patients. Study included 14 iris-claw lenses (Artisan Ophtec) in group 1, and 14 transscleral FIL- SSF (Soleko, Italy) in group 2. **Results:** BCVA improved after surgery in both techniques, and no intergroup difference was noted (0.55 ± 0.56 Logmar for group 1 and 0.6 ± 0.52 Logmar for group 2) ($p = 0.47$) at 3 months after surgery. 4 eyes (14,2 %) had a raised IOP 21 mmHg, 4 eyes (14,2 %) had corneal edema longer than 90 days (one of them presented before IOL implantation), and 7 eyes (25 %) developed cystoid macular edema (CME). 15% of patients in group 1 developed CME, while 35% developed it in group 2. CME disappeared completely with topical non-steroidal anti-inflammatory drugs or corticosteroids in 70% of the patients and with dexamethasone implant (Ozurdex Allergan) in 15%. Only 15% of patients did not achieve a total response. **Conclusions:** Both surgical procedures can be considered adequate to correct aphakia with significant improvement in BCVA and low complication rates. Only one third of the patients developed CME, with no difference between the two techniques. **Financial Disclosure:** No

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PHIALEMONIOPSIS ENDOPHTHALMITIS WITH INTRAOPERATIVE OPTICAL COHERENCE TOMOGRAPHY GUIDED DRAINAGE OF SUB-INTERNAL LIMITING MEMBRANE ABSCESS

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To report a case of post traumatic phialemoniopsis fungal endophthalmitis that presented one month after primary repair of a penetrating globe injury, which was successfully treated with intraoperative optical coherence tomography (OCT) guided drainage of sub-internal limiting membrane (ILM) abscess in conjunction with systemic and intravitreal voriconazole.

Methods

We describe an unusual case report of the presentation and treatment of phialemoniopsis endophthalmitis, while highlighting the use of intraoperative OCT in endophthalmitis.

Results

A 41 year old patient, with no past medical or ocular history, presented with a penetrating globe injury of the right eye while cutting a metal wire. The patient underwent primary open globe repair and recovered well. At post operative month one, the patient developed endophthalmitis and there was a whitish fungal ball present in the anterior chamber. Right eye anterior chamber washout, trans pars plana vitrectomy with intraoperative OCT guided drainage of sub-ILM abscess, and intravitreal ceftazidime, vancomycin and amphotericin B was thus performed. Intraoperative cultures grew phialemoniopsis species, which has been uncommonly reported in endophthalmitis. Despite continued intravitreal and systemic antifungals, there was recurrence of vitritis and the anterior chamber fungal ball, which required repeat vitrectomy with injection of 5700 cs silicone oil. Of note, there was no recurrence of the sub-ILM abscess after successful drainage with the aid of intraoperative OCT.

Conclusions

Post traumatic phialemoniopsis fungal endophthalmitis has been rarely reported. We report successful treatment with early vitrectomy surgery in conjunction with systemic and intravitreal voriconazole, while highlighting the utility of intraoperative OCT in endophthalmitis.

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ACUTE GLAUCOMA: GATEWAY TO DISCOVERING CHOROIDAL MELANOMA.

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PURPOSE:

Clinical presentations of choroidal melanoma can manifest in myriad forms, often challenging initial diagnostic presumptions. This poster seeks to elucidate how this case of acute glaucoma unraveled into the discovery of a potentially sight-threatening choroidal melanoma, emphasizing the criticality of vigilant scrutiny in ocular emergencies.

METHODS:

Acute glaucoma, a typically urgent ophthalmologic condition, unexpectedly revealed a deeper diagnostic challenge upon further examination. In this clinical presentation, the initial focus on managing acute glaucoma led to an unforeseen discovery—a choroidal melanoma.

We present the case of a 80 year-old-female exhibiting acute glaucoma symptoms, who we diagnosed with phacomorphic glaucoma. An ocular ultrasound was conducted to further assess the intraocular structures, revealing an unexpectedly large intraocular mass.

RESULTS:

A MRI provided crucial insights, suggesting features consistent with a potential melanocytic lesion within the choroidal layer. The MRI findings aligned with the suspicion of a choroidal melanoma, prompting a comprehensive approach to confirm the diagnosis and guide subsequent management strategies.

During the subsequent combined phacoemulsification and vitrectomy, the visual confirmation of this sizable intraocular mass further supported the notion of a potential choroidal melanoma, emphasizing the necessity for vigilant observation and follow-up.

CONCLUSIONS:

The discovery of choroidal melanoma in a context of acute phacomorphic glaucoma highlights the need for a meticulous approach in clinical assessment to ensure accurate diagnoses and appropriate management. This case highlights the importance of comprehensive evaluations and in-depth investigations in cases of seemingly straightforward ocular emergencies.

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EFFICACY OF INTERNAL LIMITING MEMBRANE PEELING IN EYES WITH PROLIFERATIVE DIABETIC RETINOPATHY: A META-ANALYSIS

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Purpose: To investigate the effects of internal limiting membrane (ILM) peeling on treating posterior segment complications other than macular edema in patients with proliferative diabetic retinopathy (PDR) patients.

Methods: Databases including PubMed, EMBASE, and Cochrane Library were searched on June 22, 2023. Studies comparing patients with PDR surgically treated with ILM peeling to those who did not receive were included. The primary outcome was the final best-corrected visual acuity (BCVA). Secondary outcomes were final central retinal thickness (CRT) and formation of the postoperative epiretinal membrane (ERM).

Results: Nine comparative studies were included in this meta-analysis. The postoperative BCVA at 6 months was better in those with ILM peeling (95% confidence interval (CI): -0.24 to -0.07) than those without it, while the overall final BCVA demonstrated no statistical difference between the groups (95% CI: -0.27 to 0.03). The final CRT was significantly thin (95% CI: -81.98 to -31.43), with a low occurrence of postoperative ERM in the ILM peeling group (95% CI: -1.98 to -1.17).

Conclusion: ILM peeling was effective at preventing postoperative ERM formation in patients with PDR complications; however, the functional benefit was not evident after 6 months.

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TO POSITION OR NOT TO POSITION: OUTCOMES OF 116 CONSECUTIVE CASES OF
VITRECTOMY FOR RHEGMATOGENOUS RETINAL DETACHMENT WITH NO POSTOPERATIVE
POSITIONING

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Purpose: The role of face-down posturing following rhegmatogenous retinal detachment (RRD) repair remains a consistent management component; however, there is no direct evidence to allow firm conclusions as to what role face-down positioning plays following RRD repair with modern micro-incisional vitrectomy surgery (MIVS) platforms. We evaluated the anatomic and visual outcomes of primary vitrectomy for RRD repair, employing no amount of post-operative prone positioning (POPP) to clarify the role of face-down posturing for RRD re-attachment.

Methods: Retrospective consecutive interventional case series of 116 eyes in 116 patients undergoing primary vitrectomy for RRD repair. Surgical outcomes, single surgery anatomic success (SSAS), and post-operative best-corrected visual acuity (BCVA) were investigated. The primary objective is to study the anatomic and visual outcomes of vitrectomy RRD re-attachment employing no POPP.

Results: SSAS was achieved in 112 (96.5%) of 116 eyes; SSAS was 100% in phakic patients (n=56) and 93% in pseudophakic patients (n=60), with both groups experiencing a mean improvement in BCVA.

Conclusions: Primary vitrectomy with no POPP is a successful surgical intervention for RRD repair. Our current anatomical closure rate is one of the highest reported in the literature and involved a large number of macula-off RRDs, with minimal complications and significant improvement in BCVA, primarily using 14% C3F8 for gas tamponade.

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COMPLICATION OF DEVICE INSERTION OF DEXAMETHASONE INTRAVITREAL IMPLANT:
APPLICATOR OZURDEX MALFUNCTION

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Purpose: To report a case a non-pharmacological complication occurred with the applicator of the dexamethasone intravitreal implant.

Methods: Report a case of a 76-year-old pseudophakic women treated with dexamethasone intravitreal implant (Ozurdex, Abbvie) because of cystoid macular edema in the left eye. During the procedure a malfunction with the mandrel during the injection procedure occurred. The mandrel of the device came out of the pen, becoming embedded in the sclera, it was removed with the help of Adson forceps. No complications occurred in the retina.

Result: To our knowledge, this is the first case reported of applicator malfunction of the Ozurdex device related to the mandrel during the injection procedure. We study the estimated distance to the contralateral retinal surface based on the angle of the tip of the applicator inserted from the sclerotomy.

Conclusion: The mandrel of the device could be more damaging than the micronized dexamethasone rod and can be propelled out with sufficient force and speed if it impacts on the contralateral retina. This can occur as it did in this case because the mandrel is attached by a plastic portion of only 0.1 mm to the rest of the piece.

Keywords: Ozurdex, intravitreal dexamethasone, non-pharmacological ozurdex complication.

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EXTERNAL LAMELLAR MACULAR HOLE IN MYOPIC MACULAR RETINOSCHISIS: A CASE STUDY AND SURGICAL APPROACH

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Purpose

Describing the case of external lamellar hole development in a patient with myopic macular retinoschisis and its surgical management to prevent the progression to a full-thickness macular hole.

Methods

A 65-year-old patient with myopic macular retinoschisis in one eye, amblyopic due to anisometropia, experienced a sudden decline in vision. Examination revealed the development of an external lamellar macular hole with central neurosensory retinal detachment. Surgical intervention was chosen to prevent the progression to a full-thickness macular hole.

A phacovitrectomy with hyaloidectomy and removal of the internal limiting membrane was performed, sparing the foveal area to minimize risks, and the eye was tamponaded with air.

Results

The patient showed rapid improvement with reduced retinal thickness and progressive reabsorption of subretinal fluid without iatrogenic complications.

Conclusions

Managing cases of external lamellar macular holes in high myopes poses surgical challenges but is necessary to prevent the development of more complex complications such as full-thickness macular holes and potential retinal detachment.

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CASE REPORT: RETINOSCHISIS AS A SEQUEL TO BRANCH RETINAL ARTERY OCCLUSION

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Purpose: To present a case with branch retinal artery occlusion (BRAO) complicated with retinoschisis.

Methods: A 69-year old patient was followed up in our department with a history of an inferior BRAO in his right eye (RE). Thirteen months after the diagnosis his visual acuity (VA) was 0.7 and fundoscopy revealed optic disc collaterals and associated segmental disc pallor. OCT-angiography of optic disc recorded areas of reduced blood flow and thinning nasally and in the inferior temporal quadrant. In OCT an epiretinal membrane (ERM) and multiple small cysts in the inner retinal layers were documented.

Results: Five months later his RE BCVA declined to counting fingers. In OCT a retinoschisis covering the posterior pole and extending nasally to the optic disc was documented corresponding to the ischemic areas recorded in the OCT-angiography. In fundoscopy areas of vitreoretinal adhesions and traction were detected in the affected area. The patient underwent ultra-wide field fluorescein angiography, where vascular leakage was revealed in multiple areas possibly due to disruption and traction of the retinal vascular network caused by the presence of the retinoschisis. Three months later his condition remained unchanged. Although surgical intervention was proposed, the patient refused due to possible poor prognosis.

Conclusion: BRAO can be complicated with macular retinoschisis very rarely. It has been proposed that ischemia caused by a RAO can result in destruction of RNFL and Muller cells, leading to retinoschisis. In this case, the presence of vitreoretinal traction and ERM could have also contributed to it.

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VASCULAR PRINT ON THE POSTERIOR HYALOID MEMBRANE OBSERVED DURING THE VITRECTOMY OF A BACTERIAL ENDOPHTHALMITIS CASE

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Purpose: To describe the findings observed during the vitrectomy of a bacterial endophthalmitis case.

Methods: Bibliographic review based on the presentation of a clinical case.

Results: 76-year-old male diagnosed with bacterial endophthalmitis secondary to cataract surgery, who required 23G pars plana vitrectomy (PPV23G) as a part of the treatment. At the beginning of the surgery, fibrin remains were removed from the anterior chamber and the intraocular lens. After this, central and peripheral PPV23G was carried out, observing seedings on the posterior hyaloid membrane with a high marked print of the posterior pole vessels, simulating a vasculitis process. After removing the posterior hyaloid membrane, guided by intraoperative optical coherence tomography (IOCT) due to the strong adhesion to the retina, all seedings were eliminated and the normality of the vessels was observed. Finally, the peripheral vitrectomy was completed and the vitreous cavity was left under saline solution.

Conclusions: The use of vitrectomy associated with posterior hyaloid membrane removal in cases of endophthalmitis reduces the inflammatory stimulus and the number of microorganisms in the vitreous cavity, and also improves the penetration of antibiotics. However, it is a risky surgery because of the poor visualization. Therefore, it is necessary to take into account all possible scenarios before the surgery, such as the presence of seedings strongly adhered to the posterior hyaloid that can make the surgery more difficult. In these cases, it is important to have an IOCT in order to ensure the integrity of the retina during the surgery and the complete removal of the posterior hyaloid membrane.

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IMPLEMENTING STRATEGIES TO REDUCE TREATMENT BURDEN IN NEOVASCULAR AGE-RELATED MACULAR DEGENERATION: INSIGHTS FROM EARLY USE OF SUSVIMO

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Purpose: The current standard of care for neovascular age-related macular degeneration is serial vascular endothelial growth factor (VEGF) inhibitor intravitreal injections at varying treatment intervals. SUSVIMO is a port-delivery system of ranibizumab that serves as an alternative, lower maintenance treatment for neovascular age-related macular degeneration.

Methods: Case report describing the ocular findings, diagnostic workup, and alternative treatment for an 80-year-old man presenting with new-onset neovascular age-related macular degeneration.

Results: The patient showed resolving foveal thickness, macular volume, and subretinal fluid after SUSVIMO implant OD. The patient showed a better response to SUSVIMO than to previous anti-VEGF injections. Before the first refill, the patient began to experience subretinal fluid, however, it was resolved post-refill.

Conclusions: Although effective, real-world management is associated with a significant treatment burden that can compromise treatment adherence. Herein, we describe how the port delivery system (PDS; SUSVIMO) - a refillable ocular implant that can continuously deliver a novel formulation of ranibizumab with refills possible at six months or longer - is a viable early therapy that mitigates the treatment burden of intravitreal injections.

MULTIMODAL IMAGING OF SPONTANEOUS RETINAL REATTACHMENT

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Purpose

To document and analyze a rare case of spontaneous retinal reattachment in order to explore potential mechanisms contributing to this unexpected outcome.

Methods

We present a case of a rhegmatogenous retinal detachment that, despite undergoing multiple vitreoretinal procedures, including pars plana vitrectomy with silicone oil tamponade, anatomical reattachment was not achieved. Surprisingly, spontaneous reattachment of the retina was observed during routine follow-up & observed over twelve (12) months.

Results

The patient's retina remained attached for 12 months after the last intervention without additional surgical or medical treatment. OCT images revealed normalization of retinal architecture with reestablishment of the foveal contour and partial recovery of visual acuity. No signs of proliferative vitreoretinopathy (PVR) or other commonly associated complications were observed. Immunological assays and genetic testing ruled out systemic conditions that could predispose to spontaneous reattachment.

Conclusions

This case represents a remarkable instance of spontaneous retinal reattachment without surgical intervention after multiple failed procedures. The mechanisms underlying this phenomenon remain speculative; however, delayed postoperative cellular proliferation and migration may be found in resolution. Further investigation into similar cases may provide insights into the natural history of retinal detachment and potential self-resolving dynamics, which could inform future therapeutic strategies.

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