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XEN GEL STENT IMPLANT FOR PERSISTENT GLAUCOMA AFTER SILICONE OIL REMOVAL

Giacomo Boscia[1], Pasquale Viggiano[1], Alfredo Niro[1], Francesco Boscia[1]
Department of Medical Science, Neuroscience and Sense Organs, Eye Clinic, Department of Medical Science, Neuroscience and Sense Organs, University of Bari, Italy

Purpose: To evaluate the effectiveness and safety of the XEN-Stent for managing unresponsive to medical therapy secondary glaucoma after silicone oil (SO) removal.
Methods: This retrospective chart review analyzed 12 patients who underwent vitrectomy and SO endotamponade. They experienced IOP elevation after SO removal despite taking the maximum tolerated glaucoma medication. Eleven eyes underwent an XEN-implant, while 1 underwent an XEN-implant with phacoemulsification/IOL implantation. The primary outcome was to achieve success criteria: post-implant IOP 18mmHg and 20% IOP reduction without medication (complete success) or with medication (qualified success) and without a secondary IOP-lowering procedure. IOP, best-corrected visual acuity (BCVA), and the number of glaucoma medications (Glaucoma Medication Score-GMS) were recorded at baseline, 1 day (D1), 1 week (W1), 1 (M1), 3 (M3), and 6 (M6) months postoperatively.

Results: Baseline characteristics included: males percentage 66.6%, mean age of 61.8±5.7 years, BCVA 0.69±0.3logMAR, IOP 30±4.2mmHg, and GMS 3.1±0.5. There was a significant reduction in IOP by 14±2.1mmHg and GMS by 0.4±0.8 at M6 compared to baseline

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REDUCING THE RISK OF OCCUPATIONAL EXPOSURE TO CHEMOTHERAPEUTICS IN OPHTHALMOLOGY

Deniz Goodman[1], Alana Grajewski[1], Elena Bitrian[1]
Bascom Palmer Eye Institute, University of Miami Miller School of Medicine, USA

Purpose

Determine sources of occupational exposure and measures to reduce risk of exposure to mitomycin C (MMC) and 5-fluorouracil (5-FU) in ophthalmology.

Methods

In July 2023, PubMed was queried for potential sources and prevention of occupational exposure to MMC and 5-FU. Results were screened twice by title for relevance. The following variables were extracted from relevant studies: type of antineoplastic drug, clinical setting, and primary findings.

Results

Healthcare workers exposed to antineoplastic drugs are at a higher risk for cancer and infertility. In ophthalmology, MMC and 5-FU are commonly delivered as eye drops or subconjunctival injections for ocular surface squamous neoplasia and glaucoma procedures in clinic, or intraoperatively through drug-soaked sponges during pterygium, refractive, and glaucoma surgeries. Despite implementation of personal protective equipment (PPE) and other safety precautions, several surfaces in pharmacy and oncology units were found to be contaminated with 5-FU. Potential sources of exposure to MMC and 5-FU in ophthalmology include inhalation and dermal contact from dispensing drugs or flushing the eye after administration. Furthermore, there is variable adherence to guidelines on the safe preparation, administration, and disposal of antineoplastic drugs across ophthalmic centers.

Conclusion

The implementation and oversight of measures to mitigate exposure to MMC and 5-FU may be costly and reduce workplace efficiency. However, enforcement of Occupational Safety and Health Administration guidelines including the use of full-body PPE, designated areas for drug handling, and safe disposal of contaminated materials could reduce the incidence of adverse effects due to antineoplastic drugs among healthcare workers in ophthalmology.

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Transscleral Cyclophotocoagulation in Eyes with Good Central Vision

Stefano Dore[1], Lorenza Ronchi[1], Alessio Grazioli[2], Matteo Sacchi[1], Francesco Bandello[2], Paolo Bettin[2], Antonio Pinna[1]

[1]*Department of Medicine, Surgery and Pharmacy, University of Sassari, Sassari, Italy, Azienda Ospedaliero-Universitaria, Italy*

[2]*Department of Ophthalmology, University Vita Salute, San Raffaele Hospital, Milan, Italy,*

Objective: To assess the safety of transscleral cyclophotocoagulation (TSCPC) in eyes with refractory glaucoma and good central vision.

Methods: Retrospective study with 12 months of follow-up. Inclusion criteria were adult patients (≥18 years old) with refractory glaucoma and central vision ≥10/200 requiring TSCPC (Oculight Sxâ 810nm diode laser) according to the clinician`s judgment and available follow-up examinations at 1 and 12 months. The primary outcome was to assess the TSCPC safety measured as percentage of patients experiencing vision loss and as rate of complications. Vision loss was defined as a loss of ≥2 lines if baseline vision was ≥5/10 and ≥ 1 lines if baseline vision was ≥1/10 ≤ 4/10.

Results: 53 eyes of 52 patients (mean age 62.8, range 30-89) were analyzed. At 1 month, vision loss occurred in 5 (9.43%) of 53 eyes, with 2 cases presenting cystoid macular edema resolved with therapy. At 1 year, vision loss was found in 4 (7.54%) of 53 eyes. No cases of hypotony or phthisis bulbi were recorded.

Conclusions: TSCPC showed a good safety profile in patient with refractory glaucoma. Results suggest that it can be considered as a valuable option even in patients with good central vision. Further prospective studies are needed to corroborate our preliminary results.

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STICKLER SYNDROME AND GLAUCOMA. A CASE REPORT

MB. Pastor-Nieto[1], J. Zarallo-Gallardo[2], S. Pernas-Martín[1], I. García Lozano[1], N. Ramírez-Lillo[1], E. Conesa-Hernández[1], R. Revilla-Amores[1], M. Moriche-Carretero[1]
[1]*Ophthalmology, Hospital Universitario Infanta Sofía, Spain*
[2]*Ophthalmology, Hospital Universitario del Henares, Spain*

Purpose

To describe a clinical case of a 63 year old male, diagnosed with Stickler syndrome and glaucoma

Methods

We have followed this patient with Stickler syndrome since 2009, when he was 49 years old. In addition to that, he had developed an open angle glaucoma younger than 40 years old and he was on 0,5% timolol drops.

Some members of his family had required surgery due to retinal detachment.

When he first came to our clinic, he had already undergone retinal detachment surgery in his left eye with no light perception as a result. His right eye was pseudophakic, and he had retinal holes and lattice degenerations and he required photoprophylactic argon laser treatment as well as cryotherapy in the peripheral retina.

Results

During the followup, we have performed visual fields in the right eye confirming a slight worsening over the years, so he is on a more intense hypotensive therapy now.

We also check there are no new retinal breaks in the retina. The patient is 63 years old now and his visual acuity in right eye has been good and the same over the past 10 years.

Conclusions

Stickler syndrome is an autosomal dominant hereditary vitreoretinopathy, associated with orofacial features, deafness and arthritis. It is common to find an early onset high non progressive myopia, and less frequently, myopic glaucoma, non myopic open angle glaucoma and glaucoma related to anterior segment dysgenesis.

Financial disclosure : no

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THE OUTCOMES OF PHACO-XEN WITH MITOMYCIN C AUGMENTATION IN ASIAN EYES WITH PRIMARY GLAUCOMA

S. Sutthipongkiart[1], V. Tantisevi[1,2], P. Rojanapongpun[1,2]
[1]*Ophthalmology, King Chulalongkorn Memorial Hospital, Thailand*
[2]*Department of Ophthalmology, Medpark Hospital, Thailand*

Purpose: To Evaluate the efficacy of combining phacoemulsification with XEN45 gel stent implantation, along with mitomycin-C augmentation, in Asian patients with primary glaucoma. Methods: Retrospective study on patients with primary glaucoma underwent phacoemulsification and XEN gel stent implantation (Phaco-XEN) with a minimum 12-month follow-up. Primary outcome: complete success rate at 12 months, defined as ≥20% intraocular pressure (IOP) reduction or IOP ≤18 mmHg without antiglaucoma medication. Secondary outcomes: mean IOP reduction, factors influencing success rate, and postoperative complications (hypotony, hyphema, subconjunctival hemorrhage, conjunctival tear, device issues). Results: Analysis of 104 eyes (76.9% primary open-angle glaucoma, 23.07% primary angle-closure glaucoma) revealed a 45.2% complete success rate at 12 months. No significant association between success rate and glaucoma type was found (P 0.01). Postoperative complications included hypotony (15.4%), hyphema (4.8%), subconjunctival hemorrhage (4.8%), conjunctival tear (1.9%), and device issues (1.9%). No serious complications occurred.Conclusion: Phaco-XEN demonstrated effective IOP reduction and a favorable safety profile. Success was associated with age.Financial disclosure: There are no financial conflicts of interest to disclose.

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DOES EVERY CHILD REQUIRE INTRAOCULAR PRESSURE MEASUREMENTS DURING A ROUTINE OPHTHALMOLOGY EXAMINATION?

Sivanthi Kanagasundaram[2], A. Choręziak[1], E. Zwolińska[1], A. Rzeszotarska[1], A. Chmielarz-Czarnocińska[1], M. Pawlak[1], A. Gotz-Więckowska[1]

[1]*Department of Ophthalmology, Poznan University of Medical Sciences, Poznan, Poland, Poland*

[2]*Gastroenterology, East Sussex Healthcare, UK*

Introduction

The aim of this study was to identify patient cohorts at the greatest risk of developing childhood glaucoma, in whom intraocular pressure (IOP) measurements would be compulsory, to support the diagnosis of glaucoma.

Methods

Medical records of patients diagnosed with childhood glaucoma in our tertiary centre were retrospectively analysed. Patients seen between January 1st 2017 and December 31st 2019 were included in our study.

Results

A group of 74 patients (41; 55.4% males), 127 eyes, were included in the study and assigned to subgroups according to the classification proposed by the Childhood Glaucoma Research Network (CGRN). Primary glaucoma was diagnosed in 16 patients (21.6%), with primary congenital glaucoma in 14 patients (18.9%). Secondary glaucoma was reported in 58 patients (78.4%), including glaucoma following cataract surgery (n=11, 14.9%), glaucoma associated with non-acquired ocular anomalies (11; 14.9%) and glaucoma associated with acquired conditions (28; 37.8%).

Conclusion

As many as 30 children (40.5%) referred to our tertiary centre were asymptomatic but eventually diagnosed with glaucoma. Asymptomatic individuals were identified when they were classified into the subgroups proposed by CGRN. The CGRN provided as a useful tool to not only aid in the diagnosis of patients but also as a screening tool to highlight children who were most likely to develop childhood glaucoma. IOP constitutes one of the factors for the diagnosis of childhood glaucoma and therefore, those with risk factors would require routine monitoring of their IOP.