

CONJUNCTIVAL NECROSIS FOLLOWING A SUBCONJUNCTIVAL INJECTION OF TRIAMCINOLONE ACETONIDE



Liouta A.¹, Kontadakis G.¹, Kypraiou S.¹, Alexopoulos P.², Derdera E.¹, Sarri E.¹, Vryonis G.¹

1. Department of Ophthalmology, Pammakaristos Hospital of Divine Providence, Athens, Greece

2. Department of Ophthalmology, State University of New York (SUNY) Health Sciences University, New York, US

INTRODUCTION

DISCUSSION

Triamcinolone acetonide (TA) is one of the corticosteroids frequently used to treat ocular inflammation. When applied subconjunctivally, this glucocorticoid has been shown to be especially safe and beneficial in treating a number of significant and common inflammatory ocular conditions, including corneal graft rejection, uveitis, and anterior scleritis¹. Subconjunctival TA has, also, been used as a substitute for topical steroids during cataract surgery to prevent postoperative inflammation.² The purpose of this poster is to present a case of localized conjunctival necrosis following a subconjunctival injection of TA after phacoemulsification surgery.

On S/L examination, two ulcerated lesions on the conjunctiva were noted proximal to the injection site. The cornea was clear. A fungal infection was suspected and antifungal VFEND (100mg) was administered orally two times per day for a period of ten days. The patient was scheduled for surgical excision of the lesions the following day. The lesions were excised and sent for culture and biopsy. Histology of the excised lesions revealed conjunctival necrosis with white necrotic tissue at the subconjunctival injection site and the culture was negative. The patient has subsequently been symptom free 2 weeks post excision at his follow up appointment.

Intraocular (TA) has shown great potential in treating several ocular illnesses due to the anti-inflammatory, anti-angiogenic, and anti-permeability qualities of corticosteroids.² TA is a corticosteroid that has a moderate level of potency and a generally long-lasting effect. The subconjunctival TA depot offers a treatment approach that has a long-lasting anti-inflammatory impact.³ Conjunctival ischemia and necrosis following periocular/intraocular injection of TA have been described in adult individuals. This is likely due to the following explanations: Corticosteroids have been observed to enhance the vasoconstrictive impact of circulating catecholamines, which can lead to a specific region of reduced blood flow in the conjunctiva, known as conjunctiva ischemia.⁴ Additionally, the occurrence of conjunctival necrosis following a subconjunctival steroid injection may be attributed to the presence of benzyl alcohol, an inactive component known for its potential toxicity. Furthermore, the incorrect administration of medication and insufficient use of preventive antibiotics at injection sites can significantly contribute to the development of the necrosis. Eslampour et al. found that administering steroids in the subtenon area, rather than the subconjunctival region, can potentially reduce conjunctival toxicity. The incorrect placement of medication, such as on the nasal side of the ocular surface within the palpebral area, might increase the risk of tissue death in the conjunctiva due to increased exposure and closeness to the eyelid margin. Finally, administering a little dose of topical antibiotic alongside a high dose of steroid depot can increase the risk of infection.⁵

CASE PRESENTATION

CONCLUSION

A 69-year-old male patient with grade 3 nuclear senile cataract underwent uneventful phacoemulsification and intraocular lens implantation surgery in the right eye. At the end of surgery, he was given a subconjunctival injection of triamcinolone acetonide for the prevention of ocular inflammation. One week later, the patient complained of pain and redness.

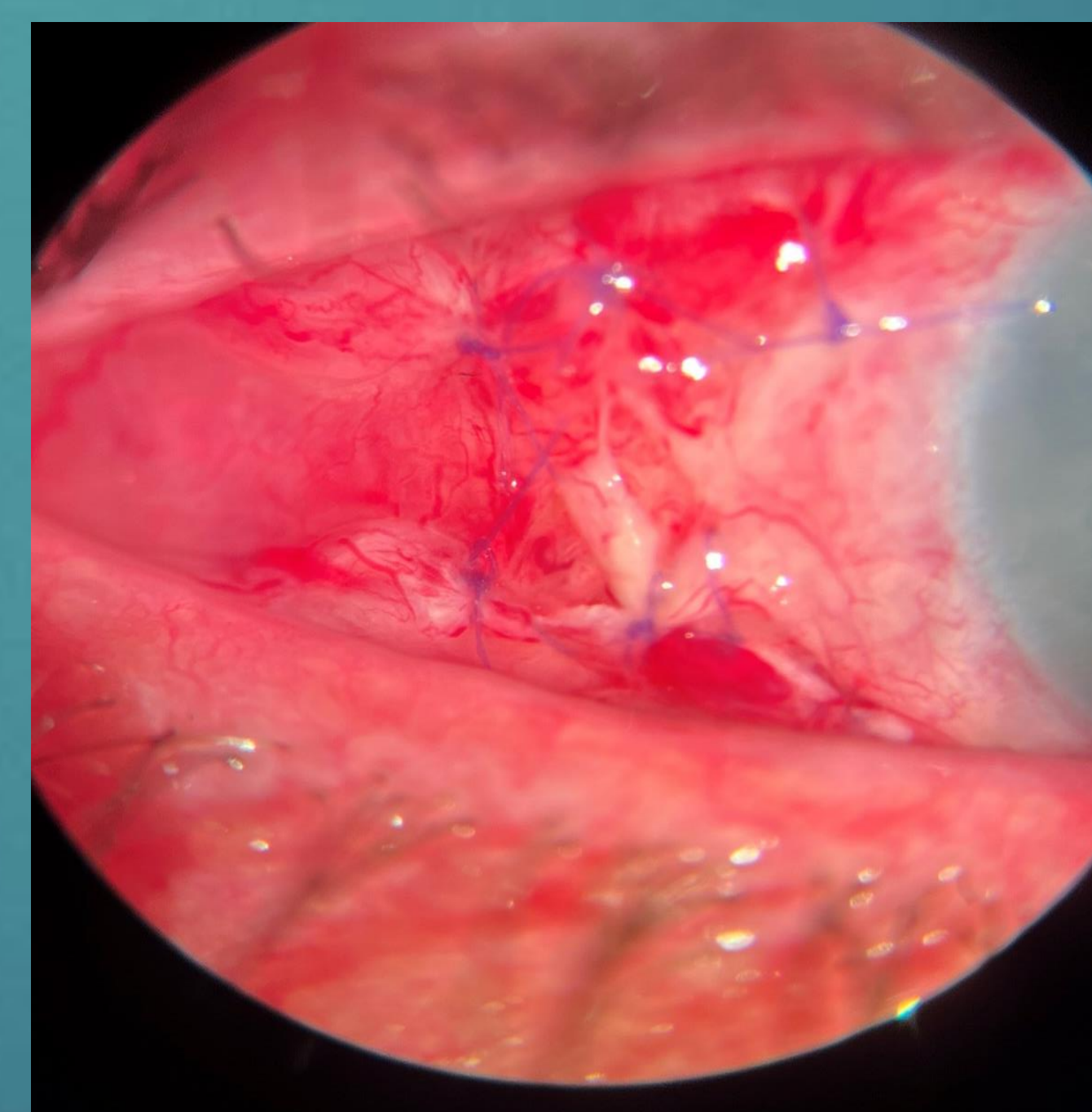
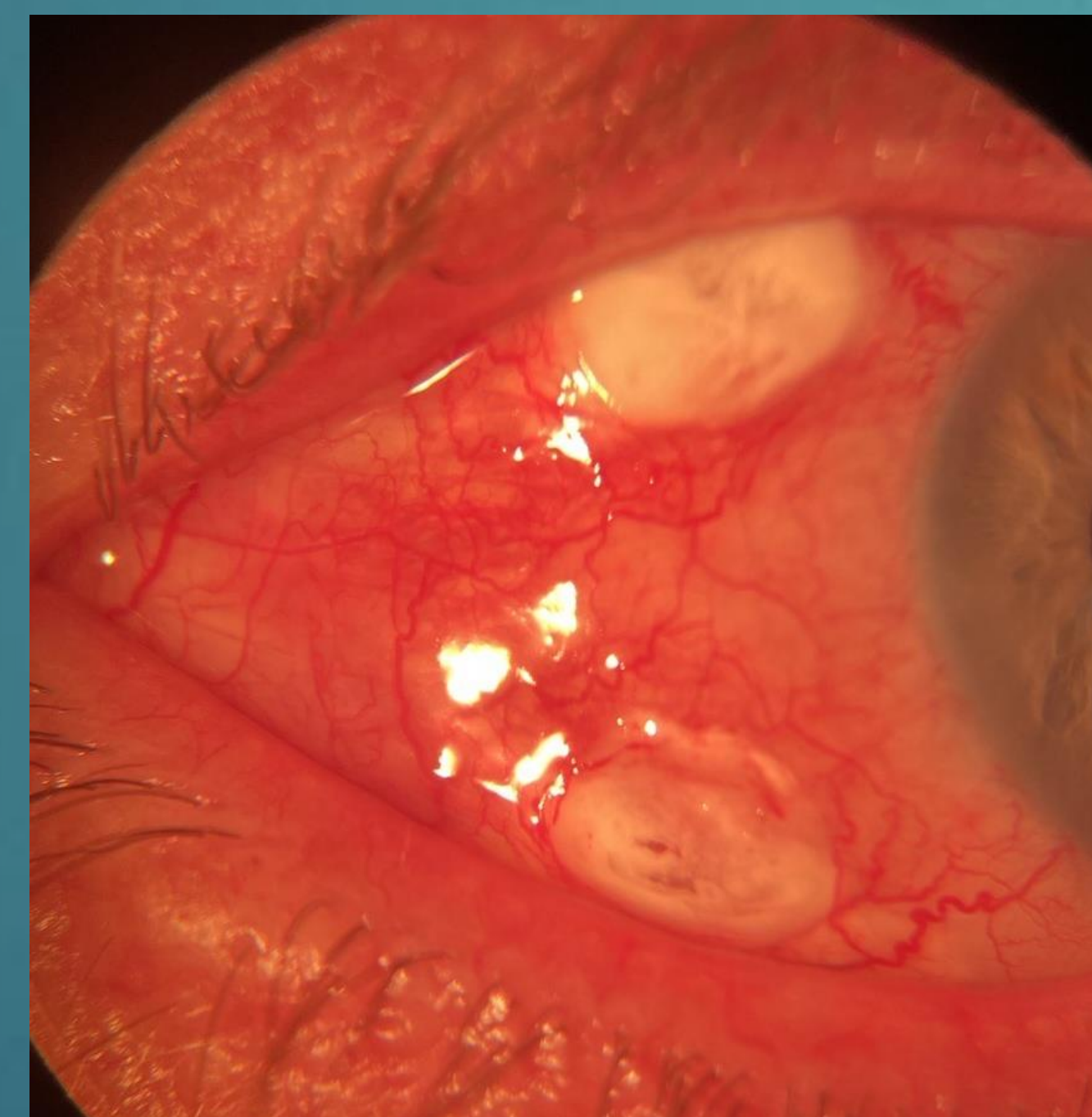


Figure 1: After 1 week post phaco

Figure 2: After the surgical excision

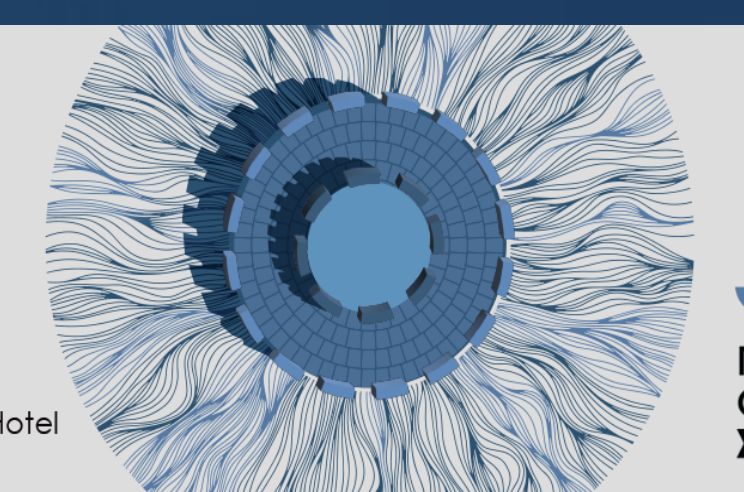
Conjunctival necrosis is a rare complication of subconjunctival injection of TA. This case verifies that TA should be used with caution as a subconjunctival medication.

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