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Case Report

Orbital cellulitis after infiltration anaesthesia for sling surgery in a case of congenital ptosis: a case report

Kshama Dwivedi*, Vibha Singh, Shubhi Sachan, Divya Katiyar

Department of Ophthalmology, MLN Medical College, Prayagraj, Uttar Pradesh, India

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***Correspondence:**
Dr. Kshama Dwivedi,
E-mail: drdkshama@gmail.com

ABSTRACT

Orbital cellulitis has been reported as a complication of various ophthalmic surgeries. But to the best of our knowledge this is first case of orbital cellulitis following sling surgery. It was an observational study. An eight-year-old male, developed orbital cellulitis after ptosis surgery. He presented to us after one week with fever, periorbital swelling, chemosis and restricted ocular movement. He was successfully managed without any sequelae. Early suspicion and prompt management are the key to successful management of orbital cellulitis following ophthalmic surgeries.

Keywords: Orbital cellulitis, Sling surgery, Congenital ptosis

INTRODUCTION

Orbital cellulitis is an uncommon disease and a very rare complication of ophthalmic surgery. It has been reported in literature after cataract surgery, radial keratotomy, corneal gluing, squint surgery and blepharoplasty.[1-5] But to the best of our knowledge, there is no case report of orbital cellulitis following sling surgery for ptosis.

CASE REPORT

It was an observational study. An eight-year-old male, underwent uneventful right sling surgery (for severe congenital ptosis). Local infiltration in lid and forehead was given, after preparing the skin with povidone iodine 5%. The surgery was completed using silicon sling. Patient was perfectly alright on postoperative day one and was discharged.

On postoperative day 7, the patient presented with ocular pain and fever. Vision in right eye was 6/9 and left eye was 6/6. Preoperative vision right eye was 6/6. On examination – lid oedema, chemosis (prominent superiorly) and mild restriction in superior gaze. Cornea has small stain positive area near the pupil medially. Anterior chamber and posterior segment examination was within normal limit. He was already on oral amoxycillin and clavulanic acid tablets. Oral metronidazole was added. The patient seemed to have pus collection superior to limbus. Pus was aspirated and sent for culture. Hemogram revealed mild leukocytosis. Computed tomography (CT) scan orbit and paranasal sinuses was also performed which revealed swelling in periorbital area. Culture report came after two days, which revealed presence of gram-positive micrococci. It also showed resistance to both the drugs, but since the patient had already started responding by that time (his fever disappeared and pus pocket became more localized) - we adhered to the same antibiotics. In addition, oral prednisolone was added to tackle the oedema.

By 11th day, all his signs decreased drastically. Superior conjunctiva became healthy again although mild congestion was there. Ocular motility became normal. Oral antibiotics and were continued for next 3 days, and oral prednisolone was tapered over that time. By day 14, all oral medications were stopped. At 6 weeks of sling surgery, the patient had a perfect outcome of ptosis surgery without any sequelae.

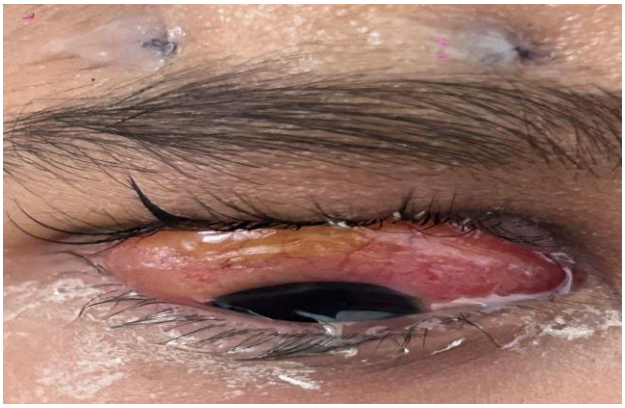

Figure 1: Postoperative day 7.

Figure 2: Postoperative day 18.

DISCUSSION

Orbital cellulitis has been reported as a complication in various extraocular and intraocular surgeries previously. As early as 1979, Morgan reported a case of orbital cellulitis and blindness following blepharoplasty.[5] Cause was unknown in his patient. He suggested that unilateral severe headache may alert one to the possibility of this rare complication. Our patient complained of headache on postoperative day one. But because it was mild and bilateral, so we didn't consider it as danger sign. On asking leading questions, the mother revealed that chemosis and yellowish discoloration of superior conjunctiva started on postoperative day 3. But due to some personal reasons she was unable to report to the hospital. In a patient of combined cataract and glaucoma surgery with intraocular lens implantation, Hofbauer et al reported orbital cellulitis.[1] The authors concluded that using alcohol for skin asepsis was not sufficient and hence the peribulbar anesthesia had driven the skin flora into the orbit. Redmill et al reported orbital cellulitis in an immunocompromised patient after subtenon anesthesia in a patient who underwent corneal gluing.[3] They incriminated use of systemic immunosuppressives as predisposing factor. Ernst et al has reported a case of successful management of orbital cellulitis and temporary vision loss following blepharoplasty.[5]

In our patient, the symptom of pain was present on postoperative day one, and periorbital swelling, chemosis and pus collection started near superior limbus started on postoperative day 3. Although the patient presented on postoperative day 7, the postoperative time after which symptoms (within 24 hours) and signs (within 72 hours) started appearing was short. Our patient was immunocompetent, with no signs of sinusitis on CT scan. Skin preparation with 5% povidone iodine is a recommended technique for asepsis, but nevertheless it's not full proof. We suggest that trauma of skin by needle during infiltration of anesthetic solution provided entry of microorganisms in the tissues. The infection was moderate, and did not extend behind the globe. Intravenous antibiotics are recommended for management of orbital cellulitis. But it was uncomplicated moderate orbital cellulitis, we decided to give oral therapy with amoxycillin-clavulanic acid and metronidazole. Extension of infection behind the globe warrants intravenous antibiotic treatment. Early diagnosis and management gave perfect outcome to the patient.

CONCLUSION

Universal recommendation of skin preparation with 5% betadine solution is not a full proof method of skin asepsis. Organisms may gain entry into the track with the needle. Early suspicion, prompt investigation and treatment in suspected case of postoperative orbital cellulitis will help the patient to have uneventful outcome.

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