



STUDY OF OCULAR TRAUMA - FOREIGN BODY IMPACTION AND LID LACERATION, REPAIRED THROUGH TENZEL SEMICIRCULAR FLAP

**Dr N
Ramabharathi**

MS, Professor and Head ,Department of ophthalmology,Rangaraya medical college ,Kakinada

**Dr Shimran
Bhattacharya***

junior resident dept of Ophthalmology,RMC Kakinada *Corresponding Author

ABSTRACT **background-** Ocular trauma is a worldwide cause of visual morbidity , which occurs in RTA and includes a spectrum of simple ocular surface or intraocular foreign bodies, abrasions to devastating lid and ocular injuries.method- prospective interventional study of an individual with 60% tissue loss in lower lid and intraocular fb embedded in deep palpebral conjunctiva.result- early intervention ,identification and removal of foreign body involved early visual recovery and immediate lid laceration repair with relaxing incision and flap reconstruction in better cosmesis and complication prevention.

KEYWORDS : ocular trauma,intraocular foreign body, lid lacerations

Fig- stage 1 – foreign body removal and pre op CT scan showing deep impacted foreign body



INTRODUCTION-

Lid lacerations occurring post trauma refers of partial or full thickness defects and accompanied by corneal lacerations,lacrimal system damage ,foreign bodies and orbital fractures. Lid repair should provide adequate lid closure,preservation of tear film,maintainance of visual fields and recreate eye which is aesthetically appealing. Depending upon the depth of laceration and tissue loss if 50-75% involvement,flap reconstructions was done, (tenzel semicircular flap advancement or Mc Gregor flap). 6 weeks follow up provided excellent cosmesis and no suture granuloma formation, localised tissue swelling post surgery ,was managed conservatively.

MATERIALS AND METHODS-

preoperatively CT scan brain and orbits were done to rule out foreign bodies ,fracture or intracranial injuries. Ct scan revealed presence of a non metallic foreign body embedded in the deep lower palpebral conjunctiva which was removed within 24 hours post trauma through local debridement ,exploration and stage 2 consisted of lid repair. Tenzel semi circular advancement was done for this patient for lower lid laceration with 60% defect. A relaxing incision over the lateral canthus followed by lateral canthotomy and catholysis was done. A mucocutaneous flap was dissected at the area of the tissue loss and advanced medially to cover the defect using vertical mattress sutures. Vertical incision was kept to the limit of eyelid margins and lateral canthal angle was reformed by suturing periosteum of whitnalls tubercle to the orbicularis oculi.

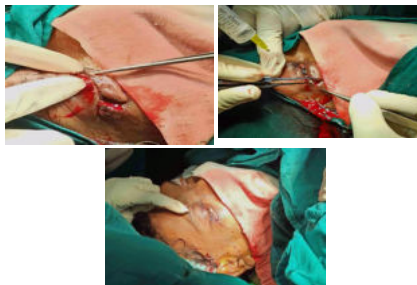


FIG -INTRA OPERATIVE TENZEL FLAP RECONSTRUCTION

RESULT-

Post operative day 3 showed only localised lid edema with well

opposed wound margins and no lid gaps or defects. 6 week follow up of the case showed full structural lid integrity with good cosmesis, no evidence of lid ectropion/entropion/closure defects. Tear film stability was maintained with Schirmer test score of 18mm in 5 mins. No evidence of tissue scarring or contracture noted post tenzel procedure,conjunctival congestion subsided.

CONCLUSION-

Early identification and removal of foreign body ,selection of proper lid repair procedure and two staged repair within 24 hours post injury provides best outcomes and minimal visual damage.

Fig- one week post op



REFERENCE-

1. Alghoul MS, Bricker JT, Vaca EE, et al. Lower eyelid reconstruction: a new classification incorporating the vertical dimension. *Plast Reconstr Surg.* 2019;144:443–455
2. Tenzel RR, Stewart WB. Eyelid reconstruction by the semicircle flap technique. *Ophthalmology.* 1978;85:1164–1169.
3. McCord CD, Boswell CB, Hester TR. Lateral canthal anchoring. *Plast Reconstr Surg.* 2003;112:222–37; discussion 238.
4. Bai HQ, Yao L, Meng XX, et al. Visual outcome following intraocular foreign bodies: a retrospective review of 5-year clinical experience. *European Journal of Ophthalmology.* 2011;21(1):98–103.