FISHING FOR AN INTRAOCULAR FOREIGN BODY

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PATIENT DETAILS



- 25y/m, carpenter by occupation came with complaints of sudden, painful diminution of vision in his left eye since 3 days after he suffered an ocular trauma while moulding an iron rod with a hammer.
- It was associated with redness, watering and intolerance to light.
- He was not wearing safety glasses at the time of injury.
- Post the incident he had presented to a local hospital where he was treated with topical steroids and lubricants and was advised for a surgical intervention for which he was referred here.

GENERAL EXAMINATION

Patient was conscious, oriented and co-operative.

- Hemodynamically stable.
- Systemic Examination was Within Normal Limits.

OCULAR EXAMINATION

• **RIGHT EYE** : WITHIN NORMAL LIMITS

• LEFT EYE :

VISION: Finger counting at 1 ft, projection of rays accurate in all quadrants
ORBIT AND ADNEXA: WNL

ANTERIOR SEGMENT

- CORNEA : Hazy with paracentral linear self sealing penetrating wound measuring 2mm noted
- ANTERIOR CHAMBER: Shallow
- PUPIL: Central/Circular/4mm dilated/ sluggishly reactive to light
- LENS: Cataractous

FUNDUS EXAMINATION

Could not be visualized due to cataractous lens



X RAY ORBIT



BSCAN



- Hyperechoic lesion approx. 2x2 mm noted temporal to the optic disc followed by a posterior acoustic shadow
- Retina : attached •

POSTERIOR ACOUSTIC SHADOW

LESION

Left Eye



INTRAOCULAR FOREIGN BODY





INTRAOCULAR -FOREIGN BODY



A well defined **hyperdensity** of size 5 x 3.5 x 4 mm noted at posterior aspect of left eyeball.

Right eyeball appears normal. Extraocular muscles on both sides appear normal.

S/o Metallic Foreign body in the Left eye.



DIAGNOSIS

• Open globe injury with retained metallic intraocular foreign body in Left eye .

MANAGEMENT

1. CORNEAL TEAR REPAIR

CORNEAL SUTURE



2. REMOVAL OF CATARACTOUS LENS



3. PARS PLANA VITRECTOMY + ENDOLASER



ENDOLASER



4. REMOVAL OF IOFB



FOREIGN BODY PICKED UP BY INTRAOCULAR FORCEPS





FOREIGN BODY BROUGHT INTO THE ANTERIOR CHAMBER BY INTRAOCULAR MAGNET PICKED UP BY INTRAOCULAR FORCEPS AND REMOVED

4. SILICONE OIL TAMPONADE





- Intravitreal Antibiotic Injection
- Bandage Contact Lens Application

INTRAVITREAL ANTIBIOTIC USED :

- Inj VANCOMYCIN 1mg In 0.1ml NS (1%)
- Inj CEFTAZIDINE 2.25mg In 0.1ml NS (2.25%)





- Foreign Body removed

POST OPERATIVE

LEFT EYE

- VISION : FCCTF, PR accurate improving to 5/60 (+11.0 DS)
- Conjunctival sutures intact
- BCL in place
- 2 Corneal sutures intact
- AC : Well formed
- PUPIL : C/IRREGULAR/NRTL
- LENS: APHAKIA
- FUNDUS : Endolaser marks seen inferotemporally (NO RESIDUAL FOREIGN BODY) Retina attached

DISCUSSION

- IOFB may traumatize the eye mechanically, introduce infection or exert other toxic effects on the intraocular structures.
- Careful history should be taken to determine the origin, nature of the foreign material and possible sites of entry and exit.
- Mechanical effects include cataract formation secondary to capsular injury, vitreous liquefaction and retinal haemorrhages and tears.
- Metallosis (siderosis, chalcosis) due to retained foreign body (iron, copper) can also cause degenerative changes in ocular structures.
- CT scan with axial and coronal cuts is used to detect and localize a metallic IOFB, providing cross sectional images with a sensitivity and specificity superior to Plain Radiography and Ultrasonography.

• MRI IS CONTRAINDICATED IN A SUSPECTED CASE OF RETAINED INTRAOCULAR FOREIGN BODY.

TAKE HOME MESSAGE

- awareness about importance of prevention of workplace ocular injury
- use of protective eyewear such as face shields or safety glasses
- ✓ post trauma- avoid topical medication or pressure on eye .
- early diagnosis and management results in good prognosis



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THANK YOU