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Intraocular Foreign

Bodies

IOFB

- ❖ IOFB can lead to severe visual impairment
- ❖ Particularly affects the young
- ❖ Careful history and examination necessary for finding of IOFB
- ❖ Frontal and lateral skull X-ray are usually sufficient to determine the presence, although not the precise location of most radio opaque foreign bodies.
- ❖ CT scan is specific for I.O.F Body.

Detection of foreign bodies:

- Indirect is best method
- CT next best , including plastic and glass
- MRI better for organic
- US supplements CT and gives info on retina
- Plain films if no CT

Inert foreign body :

- Stone
- Glass
- Porcelain
- Plastic
- Cilia

Reactive foreign body :

- Iron
- Copper
- Zinc
- Aluminum

Zinc and aluminum :

- Minimal inflammation
- Encapsulated

Siderosis

- RPE cells
- Pars plana
- TM
- Corneal epithelium
- Lens epithelium
- Pupillary constrictor muscle

CLINICAL SIGNS :

- Nyctalopia
- ↓ VA
- Mydriasis
- Iris heterochromia
- Brown deposit beneath the ant. Lens capsule
- Cataract

- Peripheral retinal pigmentation
- Diffuse retinal pigmentation
- Optic disc atrophy
- POAG

Abnormal ERG

- Increased a-Wave and normal b-Wave Diminishing b-Wave
- Finally decrease b-wave

CHALCOSIS

IOFBS containing over 95% copper :

- Severe , rapidly progressive endophthalmitis

IOFBs containing between 85 and 95% copper :

- Visual loss → deposition of copper in
- 1) Descmets membrane
- 2) Ant Lens capsule
- 3) Vit Cavity
- 4) ILM

- Kaser Flisher ring
- Ant Subcapsular sunflower cataract
- Greenish discoloration of the vitreous
- Greenish refractile deposits in the ILM

- IOFBs containing less than 85% copper usually produce no detectable change

Traditional prognostic indications:

- ❖ **VA**
- ❖ **Afferent papillary defect**
- ❖ **Haziness of media due to vit-H**
- ❖ **Retinal detachment**
- ❖ **Optic nerve damage**
- ❖ **Double perforation**
- ❖ **Large scleral laceration**

Treatment of IOFB:

❖ **Non-metallic , non-magnetic IOFB —————> Vit.x**

❖ **Magnetic IOFB (90%)**

**a) External magnetic extraction 30% vitreous Hemorrhage
associated with magnetic IOFB removal**

**b) Vit-x —————> rate of vitreous hemorrhage and endophthalmitis
after foreign body removal decreased with p.plana vit-x**

I.O.L implantation:

- ❖ **P.C.I.O.L**
- ❖ **Artisan**
- ❖ **Scleral fixation I.O.L**
- ❖ **Secondary lens implantation**

