International Ophthalmic Trauma Webinar

Webinar # 1

30th May 2020

Objective

A joint initiative by Ocular trauma society of India (OTSI) and Asia Pacific Ophthalmic Trauma Society (APOTS) to exchange knowledge using real life cases by deliberation amongst experts and fellow colleague ophthalmologists

Webinar # 1 –May 30, 2020

A 150 minutes webinar was conducted on 30th May 2020 by Ocular trauma society of India (OTSI) in collaboration with Asia Pacific Ophthalmic Trauma Society (APOTS). There were seven interesting cases presented by ophthalmologists from India, Singapore, Malaysia, Indonesia, Bangladesh and deliberated by ophthalmic trauma experts from India, Singapore, United States, Malaysia, Indonesia and Bangladesh.

Key learning points

Based on significant deliberations on the seven cases presented during the webinar; some of the key learning points are presented below

Bridging the Gap – Disproportionate Visual Loss

- Disproportionate vision loss in anterior segment trauma case; suspect posterior segment pathology and investigate accordingly – fundus photography; fundus autofluorescence; OCT can be useful tools and electrophysiology has a significant role to play in identifying macular or optic nerve pathology and if the pathology are not distinct on clinical examination or ancillary investigations.

Globe rupture and considerations for primary evisceration

- Mechanism of trauma – Based on the object causing the injury; clinician to decide if it is penetrating or possibly rupture as it can have significant implications on the follow up, outcome and management of the case.

PKP post trauma?

- Lamellar corneal procedures (DALK, DSEK) gives better wound strength hence may be preferred over full thickness PKP procedures wherever possible.
- Patient education about compromised tensile strength of graft tissue, requiring extra care from future trauma and role of protective gear for that.
- Meticulous wound cleaning, thorough assessment towards associated complications.
- Wound margin/surface material may be examined for cytology, microbial growth and drug sensitivity for better post repair outcome.
- Meticulous repair keeping in mind Descemet membrane dehiscence and uveal wound incarceration while maneuvering through post graft junction.
- Due diligence and meticulous observation for reconstruction of anterior chamber free of debris or vitreous will prevent many added complications
- Close follow up for quick recognition & management of any complication(post repair)
- Though literature suggest very poor visual recovery, our Aim is to achieve best outcome. If not, better go for future regraft
- Early repair may help in better optical/visual recovery.

Polymicrobial Post-Traumatic Endophthalmitis

- High index of suspicion and appropriate intervention can save eyes in patients with post traumatic endophthalmitis and there can be more than one organism involved in cases following trauma.
- Early recognition and aggressive treatment is imperative in managing post trauma endophthalmitis.
- Vitrectomy if performed early before the onset of vitreous or retinal abscess formations increases the chance to contain the infection and reduces the risk of intraoperative morbidities.
- Consider iris abscission in cases with devitalized iris.
- As much as possible, maintain the integrity of lens or capsule in separating the anterior from the posterior segment during primary repair – to avoid the rapid spread of infection posteriorly
- Consider withholding any form of steroids treatment during primary repair in suspected cases of vegetative infection
- Conventional culture techniques have the advantage over targeted PCR for identifying a wide spectrum causative organisms
- Consider repeating intravitreal injections as frequent as every 24-48hours in cases of severe infections
- Secondary intraocular lens implantation may be appropriately delayed for months until the eye is absolutely clear from any evidence of infection – up to 3-6 months, depending on ocular, patient, surgeon and situational factors (e.g. global pandemics).

Shuttlecock ocular trauma

- The patterns of trauma have changed in India, due to less outdoor activity and less travel
- Recently, there is a surge in "Bow and Arrow" injuries in children.
- In the lockdown period, in urban areas, we also saw an increase in shuttlecock related blunt injuries.
- Majority of them are blunt ocular trauma.
- A case of penetrating injury with nail was described with shuttle cock
- Presence of nails in an indigenous shuttle cock leading to penetrating trauma was the new mechanism described.

Canalicular repair

- Any canalicular tear must be repaired – the prognosis is better if the trauma is repaired within 72 hours of injury.
- The preferred stent for placement through the canaliculus at the time of repair is a monocanalicular stent like a Mini-Monoka

COVID-19 and Ophthalmic trauma

- A registry of ophthalmic trauma during time of COVID-19 pandemic to be worked out for possible publication and to set up guidelines about managing ophthalmic trauma during pandemic like COVID-19