Traumatic Globe Subluxation with Successful Reposit

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Introduction

➢Subluxation of the globe can occur from a variety of etiologies including trauma, periorbital soft tissue laxity, shallow orbits, exophthalmos, as well as eyelid manipulation.

Discussion

➢Globe Subluxation is approximately 5x more common in males than females[1]
➢Causes and predisposing factors include trauma, periorbital soft tissue laxity (floppy eyelid syndrome (FES)), shallow orbits (eg craniosynostosis), exophthalmos, eyelid manipulation[1-6]
➢ The optic nerve can be spared or suffer partial versus complete avulsion. ON damage usually accompanied by EOM avulsion[4]
➢ Due to the association of globe subluxation with severe craniofacial trauma and/or posterior optic nerve transection, there is often comorbidity with life-threatening complications such as subarachnoid hemorrhage, meningitis, cerebrospinal fluid leak or basal ganglia infarction[4]
➢ Ocular complications include corneal exposure, extraocular muscle damage, anterior segment ischemia, traumatic optic neuropathy [1-7]
➢ Visual outcomes are poor in most cases[1-7]
➢ Prevention includes addressing underlying disease, such as thyroid eye disease and FES. [1-7]

Conclusions

➢ Traumatic globe subluxation is an ocular emergency. Having the knowledge and ability to be able to successfully reposit a subluxed globe as soon as possible, as well as knowing how to prevent further subluxations, can avoid further ocular complications and maximize visual prognosis given the initial traumatic insult.

Citations

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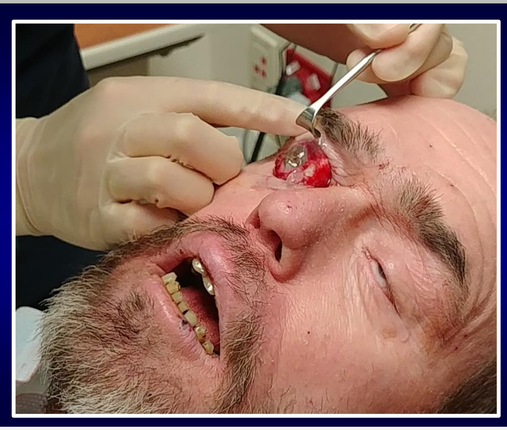
48-year-old male presented to ER with sudden vision loss OD after fall earlier that day after hitting OD with handlebar of a recliner.

Exam Findings OD:
VA : CF
IOP: 27
No RAPD
Motility restricted in all gazes



1. Prep

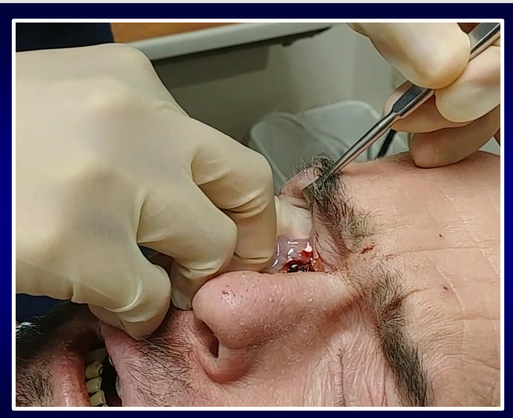
- Conscious sedation (e.g. fentanyl, diphenhydramine, benzodiazapines)
  - Can also inject lidocaine 2% with epinephrine to the upper and lower eyelid orbicularis to prevent further contraction
- Recline the patient – use gravity
- Proparacaine gtts
- Generous lubrication ung (e.g. erythromycin)
- Eyelid retractor (desmarres or paperclip)

2. Insert lid retractor

- Lift the upper eyelid away from the globe.

3. Place index finger over superior conjunctiva/sclera

- Avoid cornea if possible



4. Press down and in

- Be assertive!

Photograph of patient immediately after repositing of OD.

VA and motility OD improved to 20/30 and full, respectively.