Eye on Fire : A Case Study of Globe Rupture

Introduction

Globe rupture is a form of severe eye injury from direct trauma, causing visual alteration, pain and discernible changes in ocular appearance. Quick diagnosis and treatment are essential to prevent irreversible blindness.

Case description

A 14-year-old boy injured his right eye while playing with fireworks. Examination revealed abrasion wound on the superior temporal aspect of the lid, peri-orbital swelling with mechanical ptosis, subconjunctival hemorrhage, and chemosis. Visual acuity in the right eye was unable to appreciate light, with a non-reactive pupil. He was promptly referred to an ophthalmologist for further evaluation and underwent Computed Tomography (CT) scan for orbit. Subsequent surgery included examination under anesthesia and repair of conjunctival injuries was done. He was discharged home after 5 days of stay.

Discussion

Globe rupture is a traumatic eye injury that results in a breach of the eye's wall involving either sclera or cornea. Suspected based on injury mechanism, physical examination findings include foreign bodies in the eye, abnormal pupil shape or size, reduced vision, and positive Seidel Test indicating corneal laceration. Management focuses on reducing intraocular pressure by positioning the patient's head at 30 degrees, avoiding eye manipulation, and shielding the eye to prevent pressure. In addition, broad-spectrum antibiotics, intramuscular tetanus vaccine, and pain relief are recommended. Urgent consultation with ophthalmologists is essential for formal evaluation and further intervention.

Conclusion

Prompt recognition and management of globe rupture are essential. Timely referral to ophthalmology is necessary, as surgical scleral inspection is mandatory in most cases to prevent permanent vision loss.

Keywords

Globe rupture, trauma, surgery