

TRAUMATIC GLOBE LUXATION FOLLOWING ROAD TRAFFIC ACCIDENT – A CASE REPORT

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ABSTRACT

Traumatic globe luxation is a rare but vision-threatening ocular emergency often associated with severe craniofacial trauma. We report a case of a 30-year-old male who presented with complete globe luxation following a road traffic accident. Prompt ophthalmic assessment and surgical intervention led to successful repositioning of the globe with favorable anatomical outcome. This case emphasizes the importance of rapid, multidisciplinary management in ocular trauma.

INTRODUCTION

Globe luxation refers to complete displacement of the eyeball out of the orbital cavity, often caused by trauma. While rare, it demands immediate attention to preserve vision and ocular integrity. Traumatic globe luxation may be associated with retro-orbital hemorrhage, optic nerve damage, and orbital fractures. Management requires a stepwise approach, from initial stabilization to globe repositioning and definitive surgery.

CASE REPORT

A 30-year-old male presented to the Trauma Centre in an inebriated state following a roadside accident. The mechanism of injury involved blunt trauma from a road traffic accident. The patient had a herniated left eyeball and associated facio-maxillary injuries.

Primary survey revealed an unsecured airway due to blood and vomitus, which was managed with endotracheal intubation. The patient was spontaneously breathing with bilateral air entry and hemodynamically stable (BP 116/74 mmHg, PR 90/min). GCS was E1VtM5. Right pupil was present and non-reactive to light; the left pupil could not be assessed due to luxation.

Secondary survey showed bilateral nasal ala lacerations, left eye globe luxation, and left maxillary swelling. No abnormalities were noted in other systemic evaluations.

DIAGNOSIS

Left eye post-traumatic multiple orbital wall fractures with retro-orbital hemorrhage and complete globe luxation.



Figure 1: Shows Globe- displaced out of the rim, facing laterally.

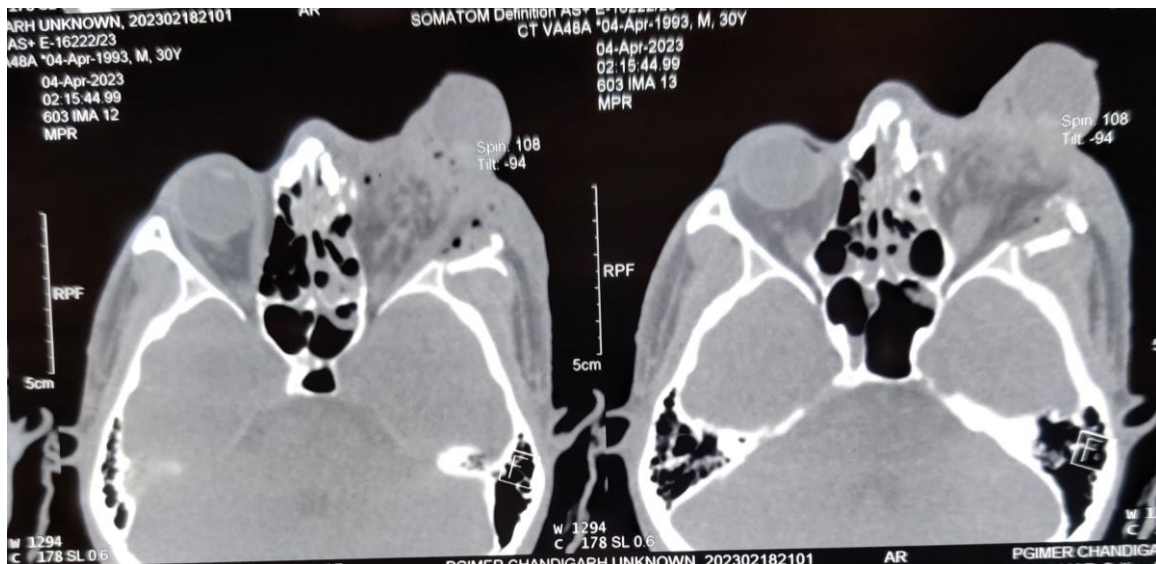


Figure 2: CT scan shows Hemosinus, lateral wall fracture and medial wall fracture.

MANAGEMENT

Emergency surgical management was performed under local anesthesia. The surgical steps included:

- Assessment of orbital space
- Left lateral canthotomy with cantholysis for retro-orbital decompression
- Manual repositioning of the globe into the orbit
- Temporary tarsorrhaphy and eyelid appositioning

These procedures were carried out on the same day.



Figure 3: shows post -operative repositioned Globe.

DISCUSSION

Globe luxation is classified into subluxation (partial protrusion) and luxation (complete protrusion). Mechanisms include blunt wedge trauma between the superomedial orbit and globe or counter-coup injury. CT imaging is crucial to assess orbital wall fractures, optic nerve avulsion, and muscle integrity. In the absence of optic nerve or muscle avulsion, repositioning can be safely attempted. Retro-orbital hemorrhage warrants lateral canthotomy to relieve pressure and prevent optic nerve damage. Biological dressings, AMG grafts, and temporary eye shields aid post-operative protection.

CONCLUSION

Traumatic globe luxation requires rapid and coordinated care to ensure favorable anatomical and visual outcomes. Lateral canthotomy, cantholysis, and globe repositioning remain the cornerstone of emergency management. A systematic stepwise approach enhances chances of vision preservation.

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