# A Case of Traumatic Globe Subluxation Associated with Sporadic Inclusion Body Myositis

**Sarah Campbell, Olayinka Williams, Ore-oluwa Erikitola, Vikas Chadha**
Tennent Institute of Ophthalmology, Gartnavel General Hospital, Glasgow

## Introduction

- Traumatic globe subluxation is a rare ophthalmic emergency that occurs following direct globe trauma resulting in a complete prolapse of the globe beyond the orbital rim[1]
- We report a case on a background of sporadic inclusion body myositis (sIBM) and its surgical management.

## Case History

- A 61-year-old retired chef with a background of sporadic inclusion body myositis (sIBM) was brought into the emergency department after suffering an un-witnessed fall
- On arrival he was conscious, orientated and observations were stable
- The left globe was visibly subluxated out of the orbit and suspended on the eyelids and orbital margin with complete limitation of extraocular motility
- Attempts to manually reposition the globe back into the orbit by A&E were unsuccessful
- On ophthalmology review the pupil was fixed, dilated and unresponsive to light, visual acuity was reduced to no perception of light and intraocular pressure was 50mmHg
- Lateral canthotomy and cantholysis was performed at the bedside and treatment with IV acetazolamide was commenced
- CT scan showed a 13 mm proptosis with marked swelling of the extraocular muscles
- The optic nerve appeared to be abnormal with signs of possible disruption no orbital or facial bone fractures were identified.

## Management

- Exploration of the orbit was performed the following day under general anaesthetic
- The inferior oblique, inferior rectus extraocular muscles were found intact while the superior and medial recti were ruptured
- Following failure of globe repositioning under general anaesthetic he underwent an enucleation and ocular prosthesis insertion with good cosmetic rehabilitation

*Figure 1 - Computed tomography image demonstrating prominent globe subluxation*

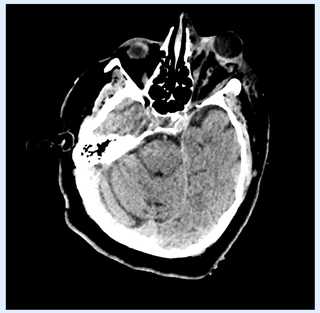


*Figure 2 – Left subluxed globe preoperatively*



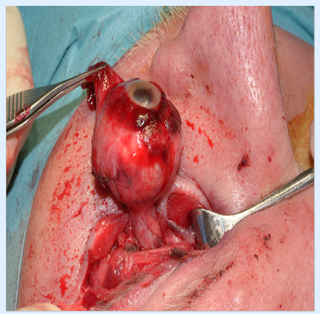


*Figure 4 – Intraoperative surgical exploration of the globe*



*Figure 5 – Postoperative placement of left ocular prosthesis*

## Discussion

- Traumatic globe subluxation is a sight threatening emergency
- The majority of post-traumatic cases are associated with underlying fracture of the bony orbit[2] though in this rare case, subluxation occurred without any fractures
- Management aims to successfully reposition the globe into the orbit and repair damaged extraocular muscles
- Enucleation is the last procedure to be resorted to when the globe cannot be reinstated after all possible efforts[1]
- Sporadic inclusion body myositis (sIBM) is an acquired progressive autoimmune inflammatory disease characterized by muscle weakness
- Muscles of the quadriceps and muscles of the fingers and wrist are most severely affected with patients becoming more prone to falls [3-4]
- Literature suggests that sIBM has an inflammatory degenerative aetiology
- Diagnosis is confirmed by muscle biopsy
- sIBM in this patient's case may have caused degenerative changes in the extraocular muscles thus making him more susceptible to extraocular muscle avulsion and globe subluxation

## Conclusion

- To the best of our knowledge this is the first case of traumatic globe subluxation documented in the literature occurring on a background of sIBM
- This case illustrates the importance of early management of such cases including urgent ophthalmic assessment, imaging and repositioning of the globe

1. Kumari E, Chakraborty S, Ray B. Traumatic globe luxation: A case report. Indian J Ophthalmol 2015;63:682-4.
2. Lida S, Kogo M, Siguira T, Mima T, Matsuya T. Retrospective analysis of 1502 patients with facial fractures. Int J oral Maxillofac Surg. 2001;30:286–90
3. Weihl CC.Sporadic Inclusion Body Myositis and other Rimmed Vacuolar Myopathies. Continuum (Minneap Minn). 2019 Dec;25(6):1586-1598.
4. De Paepe B.Top of FormSporadic Inclusion Body Myositis: An Acquired Mitochondrial Disease with Extras. Biomolecules 2019 Jan 7;9(1):15.