

## Incidental finding of right lens dislocation following trauma

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**Section:** Neuroradiology

**Area of Interest:** Eyes

**Procedure:** Computer Applications-Detection, diagnosis

**Imaging Technique:** CT

**Special Focus:** Trauma Case Type: Clinical Cases

**Authors:** Fionn Coughlan, Kitty Shakur, Evan Wong

**Patient:** 53 years, male

### Clinical History:

A 53-year-old male patient presented to ED following an alleged assault and episode of loss of consciousness. He had a laceration involving his right upper eyelid. He had no visual symptoms. Visual acuity was 6/9 pinhole in the right eye. Right intraocular pressure was raised at 32mm-Hg.

### Imaging Findings:

A CT head non-contrast was performed given the mechanism of injury. It showed a medial dislocation of the right lens. There was an old, healed left medial orbital wall fracture seen. There was no evidence of globe injury or haemorrhage. There was no other pathology seen on CT or slit lamp examination. Ophthalmology review determined that the dislocated lens was an incidental finding and not associated with the recent assault.

### Discussion:

Lens dislocation or subluxation is most commonly seen after trauma [1]. Atraumatic dislocations are also seen in patients with congenital connective tissue diseases such as Marfan's and Ehlers-Danlos syndrome. Ocular causes include staphylomas, ectasias, buphthalmoses, high myopia, hyper-mature cataract and syphilis [1]. It is a rare complication of head injury [2]. The lens can dislocate into both the anterior and posterior chambers [1]. It generally presents with visual changes such as reduced acuity or diplopia [3].

CT is an excellent diagnostic modality in lens dislocation with the lens being clearly visible [4]. Point of care testing with ultrasound scan can be used if CT is unavailable and dislocation is expected. USS is contraindicated in cases of globe rupture [2]. Lens dislocation is a threat to vision and complications include glaucoma, retinal detachment and cataract [1]. Treatment follows referral to the ophthalmology services and is mostly surgical, by replacing the affected lens, or by re-positioning it or ex-planting it. Anterior lens dislocation is a surgical emergency as it can interfere with the drainage of aqueous humour and cause obstruction and acute angle closure glaucoma [3]. In this case the dislocation was deemed to be chronic, and visual acuity was preserved, therefore a decision was made to manage it conservatively. His intraocular pressure normalised with medical therapy. This case highlights the need for a careful history and clinical examination where lens dislocation is seen on CT.

**Differential Diagnosis List:** Lens dislocation, Lens subluxation, Traumatic lens dislocation

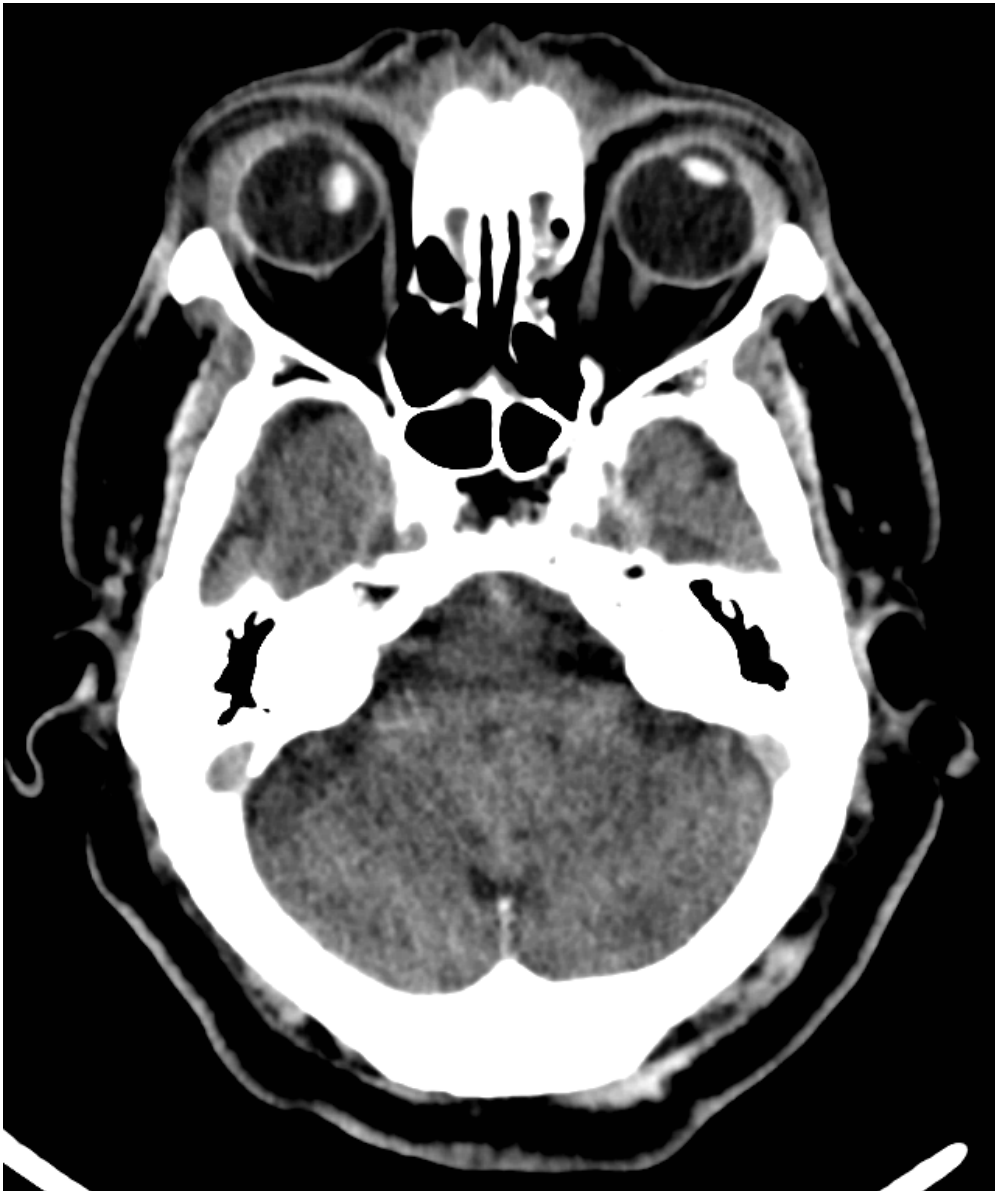
**Final Diagnosis:** Lens dislocation

**References:**

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**Figure 1**

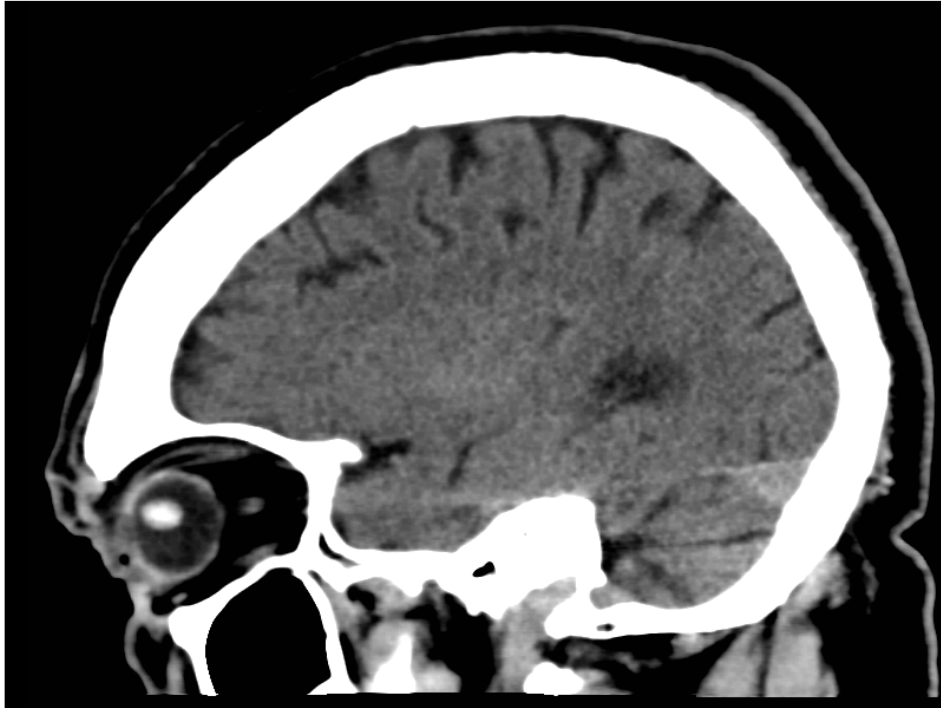
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**Description:** Axial CT head non-contrast at the level of the orbits showing a right medial lens dislocation **Origin:** Department of Radiology, Royal Perth Hospital, Perth WA, Australia

**Figure 2**

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**Description:** CT head in sagittal plane showing the right dislocated lens. **Origin:** Department of Radiology, Royal Perth Hospital, Perth WA, Australia