

INTRODUCTION

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18-year-old male with a past medical history of:

- Bilateral idiopathic uveitis
- Steroid induced glaucoma

Presented to the emergency department with blurry vision after accidental strike to the face by a car door 2 hours prior

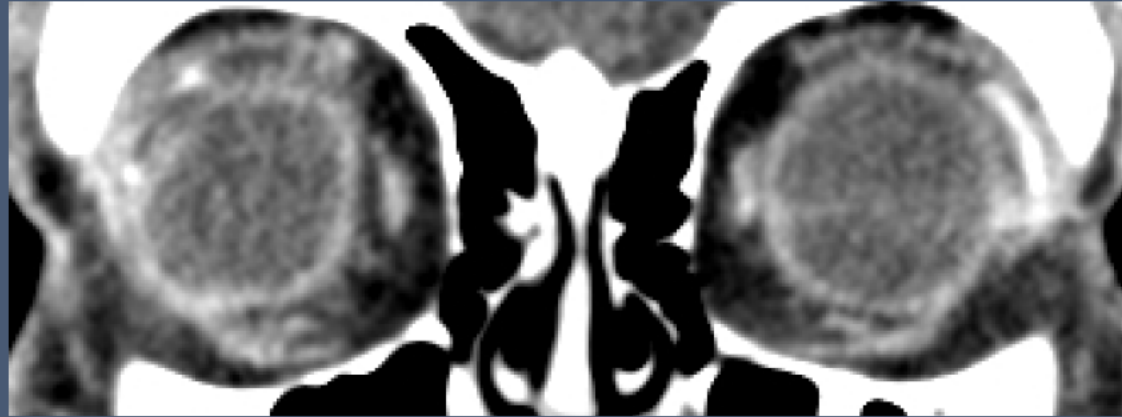
CT Maxillofacial with contrast was ordered by ER



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CT Maxillofacial with Contrast

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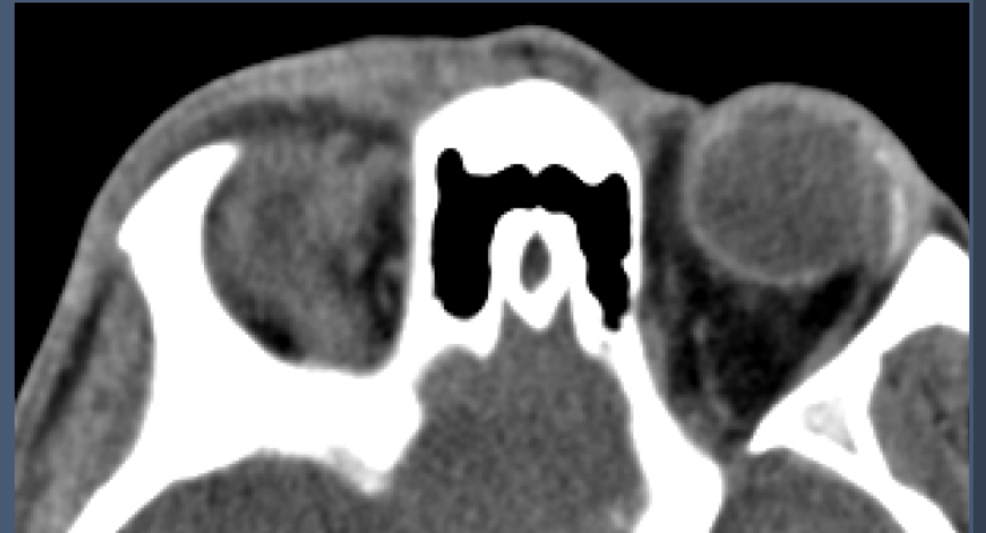


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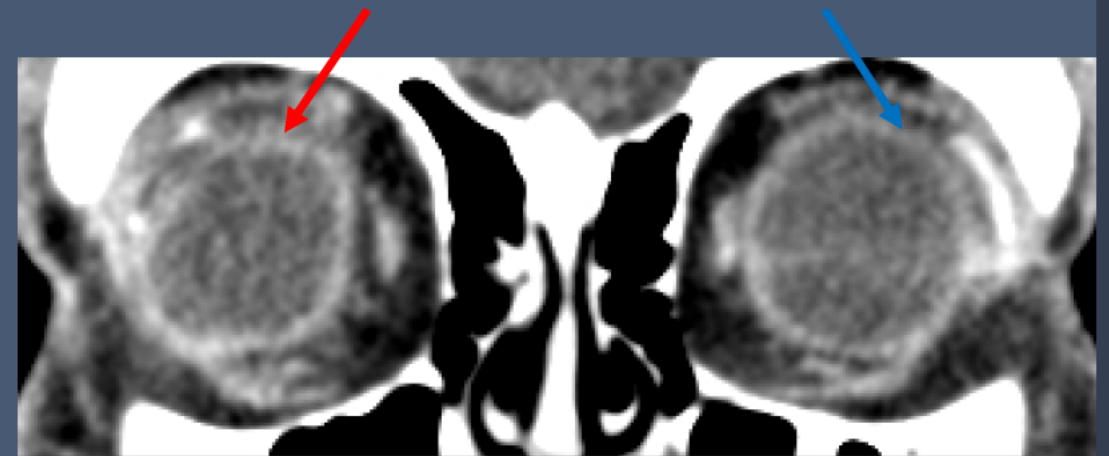
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Findings

Axial contrast enhanced CT demonstrates irregular contour of the right globe with collapse indicative of globe rupture (red arrow)

Coronal reformat demonstrates similar findings (red arrow) with visualization of the normal left globe and tube shunt for comparison (blue arrow)



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Findings

Glaucoma shunt tube is displaced posteriorly (red arrow) next to the posterolateral aspect of the ruptured right globe

Axial images through the left orbit demonstrate normal position of the contralateral tube shunt (blue arrow) for reference



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Diagnosis

Diagnosis:
Acute traumatic globe rupture with migrated tube shunt

Differential Diagnosis: None

Ophthalmology was consulted and patient was taken for emergent globe repair with anterior chamber re-inflation. Intraoperatively, the patient was found to have 10 mm full thickness scleral tear from 10 o'clock to 2 o'clock at the tube shunt insertion with uveal prolapse

Tube enters anterior chamber at the junction of the cornea + sclera (limbus)

The plate is placed between the sclera and conjunctiva where intraocular fluid is drained to be resorbed by adjacent vasculature

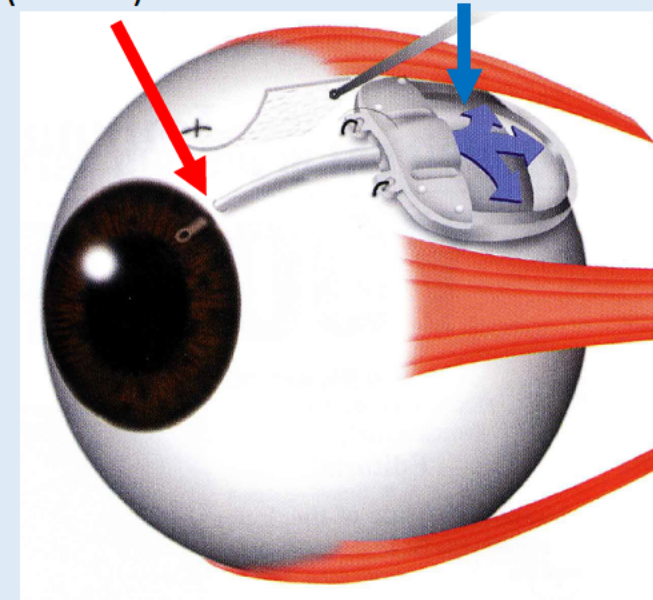


Figure 1. Depiction of typical shunt device

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Tube shunts are made of polypropylene or silicone and can be visualized on CT to assess integrity and position

Often placed for cases of glaucoma refractory to primary therapy (anti-glaucoma medications and trabeculectomy)

There are many device types that all achieve similar end goal of lower intraocular pressure and have similar CT appearance

Shunt devices may place the globe at higher risk of injury in the setting of trauma due to the intimate placement of the device within the ocular parenchyma



Figure 2. Typical appearance of a glaucoma tube shunt



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