

No perception of light following ocular trauma- to operate or not to operate?

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Introduction:

Secondary repair in complex trauma cases can be debatable. Enucleation within 21 days is still one of the options to prevent sympathetic ophthalmia. Attempt to perform surgical repair can be a time-consuming and challenging task with limited visual gain.

Tab.1 Considerations in performing secondary in ocular trauma with no perception of light (NLP) vision : ethical, financial, legal

AGAINST	FOR
<ul style="list-style-type: none"> • Risk of sympathetic ophthalmia- potentially catastrophic consequences • Complex, resources-consuming surgery, with possibly little benefit • The eye might become uncomfortable/painful or cosmetically unattractive 	<ul style="list-style-type: none"> • Risk of sympathetic ophthalmia is very low and enucleation might not prevent it • Loss of eye can have severe psychological impact • Treatment of certain pathology can lead to improvement in vision light perception and hand motion in 34% of eyes with NLP after vitrectomy (CF)-20/400 in 16% better than 20/400 in 11%.

Anderson RL, Caplan A, Schuman JS. Ethical Considerations for Performing Intraocular Surgery on Eyes with No Light Perception. Ophthalmology. 2019

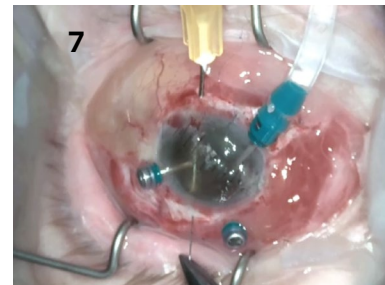
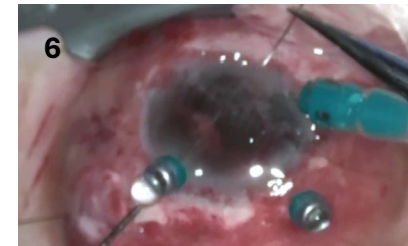
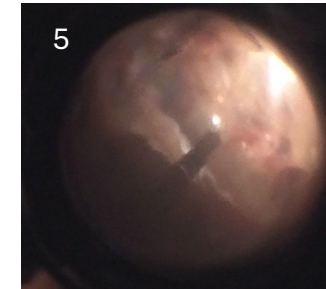
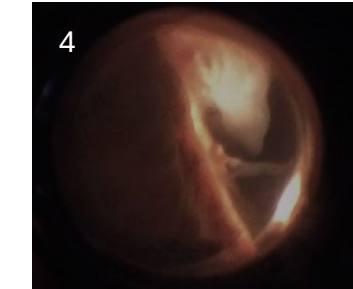
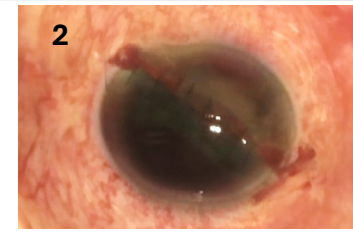
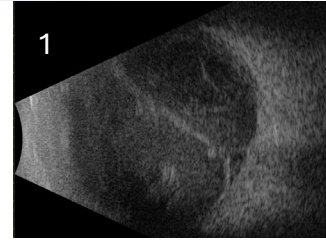


Fig. 1-2 initial presentation
Fig. 3-6 secondary repair – 1st surgery
Fig. 7 secondary repair – 2nd surgery

Ten days after the initial repair secondary surgery was carried out.

Choroidal blood was drained via a 2 mm cutdown incision 6 mm from the limbus.(Fig.3)

Anterior chamber was cleared from necrotic tissue and blood with cutter and opened with cohesive viscoelastic.

Vitreous cavity was visualised with closed funnel retinal detachment and anterior retina incarcerated in the scleral wound, and a large choroidal cleft superior-nasally.(Fig.4)

Funnel was open with cohesive viscoelastic, partial retinectomy was performed .

Heavy liquid (HL)was introduced to the funnel, allowing opening. Retinectomy was completed and 360 laser performed (Fig. 5)

Choroidal cleft was closed with 10.0 Prolene suture. (Fig.6) Some corneal sutures were replaced and cyanoacrylate glue applied; HL was left in situ.

After 10 days additional laser was performed and retention sutures (10.0 Prolene) placed 1.5mm from the limbus.(Fig. 7)

Silicone oil 5000cs was inserted via direct exchange with HL.

Result:

After 4 months sutures were removed, and 6 months after the surgery the eye is comfortable on G. Dexamethasone, vision is restored to perception of light, pressure 8mmHg

Conclusions:

- Despite poor visual prognosis in severe trauma cases, option of surgery should be offered to patients whenever possible
- Vitreoretinal Team should always be involved in the assessment of such cases to avoid premature enucleations
- Honest, informed discussion and patient involvement in the decision making is very important.

No financial disclosures

Purpose:

To present a case of secondary repair in a context of complex trauma and NLP

Setting:

Nottingham University Hospitals NHS Trust

Case description:

A 72-year-old male patient underwent primary repair of left ruptured globe, following a blunt trauma with a piece of wood in May 2024.

At the time of primary repair large corneal and scleral wound with loss of lens and uveal tissue was noted. Due to NLP vision and disorganized anterior segment, option of enucleation was offered to the Patient. (Fig.2.)

There was no fundal view, but ultrasound revealed kissing haemorrhagic choroidal detachments (Fig.1)

After consultation with a vitreoretinal consultant secondary repair was offered in attempt to preserve the eye.

Following extensive discussion with the Patient and his Relatives about risks and benefits, the patient agreed to undergo further repair.