

# Diagnosis and Initial Management of Open Globe Injury in a District Hospital: A Case Report

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**Abstract:** This case report on a case of open globe rupture discusses the identification and initial management of globe rupture by a district hospital (Hospital Papar). A 34-year-old gentleman with a history of left frontal craniotomy done more than 20 years ago for a benign brain tumour, leaving him blind in both eyes, presented to Hospital Papar with a left painful red eye with bleeding. He was allegedly hit over his left-sided face by his niece's head when he was trying to bend down and his niece was concurrently jumping up. The district medical officer mistakenly identified a blood clot adherent to the conjunctiva with subconjunctival haemorrhage and hyphema of the left eye. Although open globe injury was not suspected, an immediate ophthalmology referral was made. The detailed ocular assessment revealed a full-thickness scleral laceration with uveal prolapse and hyphema, consistent with open globe rupture. Intravenous Vancomycin, Ceftazidime, and intramuscular tetanus vaccine were administered, followed by primary surgical repair done within 24 hours. Open globe rupture is defined as a full-thickness defect of the eyewall which can be caused by either a laceration or an occult rupture. Ocular evaluation should be conducted to determine the magnitude and extent of the injury as well as to plan for its subsequent management. Skull X-ray can be done in low-resource settings to rule out intraocular foreign bodies, but ultimately, a non-contrasted orbital computed tomography should be employed. Primary surgical repair should ideally be done within 24 hours of the trauma to prevent sight-threatening complications such as endophthalmitis. Awareness and attention to physical findings suggestive of open globe injury by primary or emergent care settings are essential for prompt ophthalmological intervention to avoid irreversible damage which may lead to endophthalmitis, permanent visual loss or even evisceration.

**Keywords:** Globe rupture, Open Globe Injury, Hyphema, Blood Clot