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Endoscopic transnasal retrieval of an airgun pellet lodged in the orbital apex

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DESCRIPTION

A 17-year-old boy presented to eye casualty complaining of loss of vision in the right eye after being shot at close range in the right nasolabial fold with an airgun rifle (figure 1A). The right eye perceived light only (left visual acuity 6/5) with a relative afferent pupillary defect but otherwise normal examination. CT of the orbits and brain revealed a pellet lodged against the right optic nerve within the superior orbital fissure (figure 1B). The patient was started on pulsed high-dose intravenous methylprednisolone within 8 h and the pellet was retrieved from the orbital apex the next day via endoscopic transnasal approach with optic nerve decompression (figure 1C). Three months post-injury, examination revealed a right traumatic optic atrophy (figure 1D) with subtle improvement to 'hand movements' vision. The estimated incidence of ocular airgun injuries in the UK is 91–115 cases per year; 90% of victims are men, mean age is 17.5 years and only 23% of injuries are deliberate.[1] Literature review indicates early administration of high-dose steroids remains controversial with infrequent but notable complications.[2] Endoscopic transnasal approach improves visualisation and access to foreign bodies within the orbit making it a relatively safe technique.[3] However, the visual prognosis remains poor if the

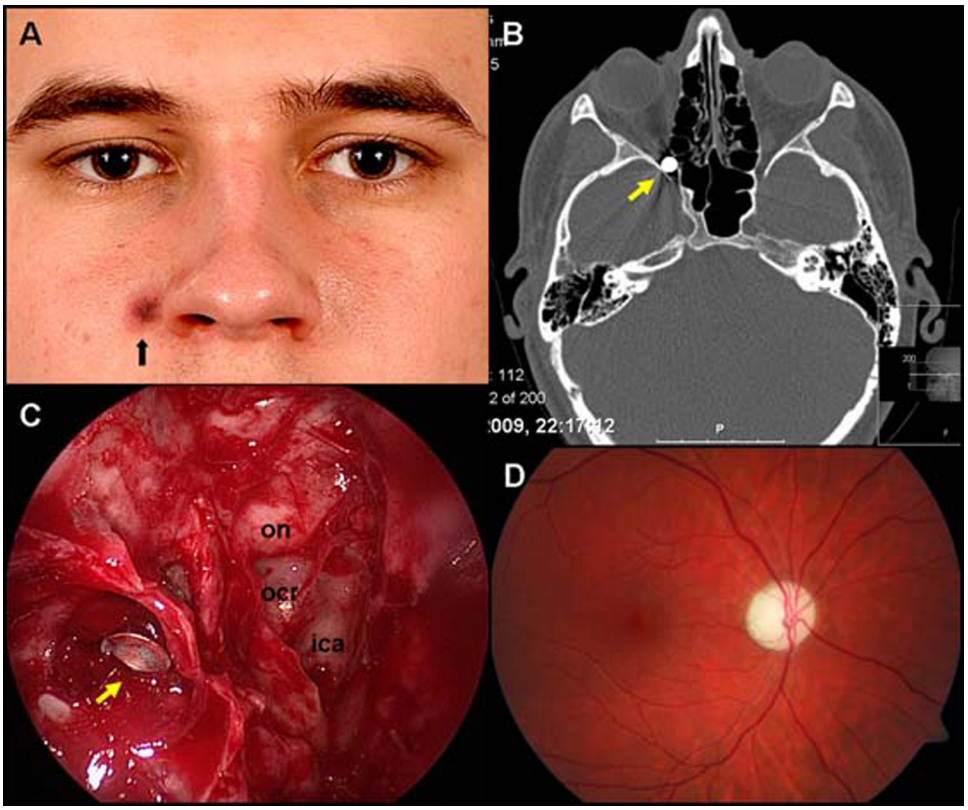

Figure 1 (A) Airgun pellet entry wound (5 mm diameter) at the right nasolabial fold (black arrow); (B) CT of the orbits and brain showing the airgun pellet in the right orbit (yellow arrow); (C) endoscopic dissection to identify the pellet (11 × 6 mm, yellow arrow) lodged in the orbital apex through the superomedial antral wall abutting the optic nerve (on); (D) 3 months post-injury right fundal view reveals traumatic optic atrophy. ica, internal carotid artery; ocr, optico-carotid recess.

presenting visual acuity is poor.[1 2] A prospective randomised trial is required to assess the use of early steroids versus early surgical removal of the airgun pellet. Currently, urgent referral for joint care between ophthalmology and ear, nose and throat permits optimal management of orbital injuries.

Competing interests None.

Patient consent Obtained.

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