

# Transnasal penetrating intracranial injury

The majority of patients with this mechanism of injury were due to accidental falls on objects that enter the nostril,<sup>1)</sup> while few were due to attempted suicide. This mode of penetrating intracranial injury can result in severe complications, including [cerebrospinal fluid rhinorrhoea](#) and infection (meningitis and/or brain abscess).<sup>2)</sup> The source of the bacteria could have been from the chopstick or the normal flora in the nasal cavity/paranasal sinuses. Such injury can also result in blindness or ophthalmoplegia,<sup>3)</sup> if the orbital cavity is involved. The most dreadful complication is severe haemorrhage due to internal carotid artery injury, which may lead to immediate death.1 Although foreign body in the nose is a common presentation, clinicians should always have a high index of suspicion for possible transnasal penetrating intracranial injury. Such vigilance is especially necessary in patients who cannot volunteer a clear history or complaint (eg children or psychiatric patients), are febrile, have a neurological deficit, or have continuous epistaxis.

1)

Ihama Y, Nagai T, Ninomiya K, Fukasawa M, Fuke C, Miyazaki T. A transnasal intracranial stab wound by a plastic-covered umbrella tip. *Forensic Sci Int* 2012;214:e9-e11.

2)

Hiraishi T, Tomikawa M, Kobayashi T, Kawauchi T. Delayed brain abscess after penetrating transorbital injury [in Japanese]. *No Shinkei Geka* 2007;35:481-6.

3)

Liu SY, Cheng WY, Lee HT, Shen CC. Endonasal transsphenoidal endoscopy-assisted removal of a shotgun pellet in the sphenoid sinus: a case report. *Surg Neurol* 2008;70 Suppl 1:S1:56-9.

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