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NEUROLOGICAL PICTURE

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Terson's syndrome in subarachnoid haemorrhage

A 28 year old man complained of thunderclap headache and shortly after became unconscious. Upon arrival to the emergency department he was comatose and exhibited sluggishly reactive pupils and extensor posturing. His CT scan of the brain revealed subarachnoid haemorrhage with global brain oedema (fig 1A). On careful examination, the CT scan also showed right intraocular blood (fig 1B). Fundoscopic examination confirmed the presence of right vitreous haemorrhage (Terson's syndrome). Twelve hours later the patient was declared brain dead.

Intraocular haemorrhages occur in approximately one third of patients with acute aneurysmal subarachnoid haemorrhage. The main types are intraretinal, subhyaloid without vitreous involvement, and vitreous haemorrhage (known as Terson's syndrome). Terson's syndrome, present in 5–8% of cases,¹ is the most serious form and may lead to blindness. It is commonly associated with coma, perhaps because both are caused by a sudden massive rise in intracranial pressure. While radiological findings are typically subtle,² more prominent intraocular haemorrhage may be noted on CT scan in very severe cases, as illustrated in this report. The management of this condition in survivors is controversial. Some experts recommend early vitrectomy to hasten visual recovery and prevent complications from proliferative vitreoretinopathy.^{1–3} Others advocate initial

conservative approach in light of data indicating that spontaneous visual recovery often occurs.⁴

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Figure 1 (A) CT scan of the brain showing subarachnoid haemorrhage with severe global brain oedema. (B) Magnified axial cut through the orbits showing a large right vitreous haemorrhage seen as a crescent-shaped hyperdense signal on the temporal retinal surface (arrow) adjacent to the optic nerve.