# VASCULAR NEUROSURGERY Subarachnoid haemorrhage

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haemorrhage is known as Terson’s syndrome and occurs in 15–20% of patients. Papil - loedema should be sought, b ut may not be evident early in the course of a developing hydrocephalus. Investigation CT scan is the imaging of first choice; when performed within 12 hours of ictus, it will confirm bleeding in more than 98% of cases. This makes a diagnostic lumbar puncture unnecessary ( Figure 48.14 ). ). A - - - rance, gave his account of this condition in 1908.

Anterior cerebral communicating artery artery 36% 38% 21% Middle cerebral Posterior artery communicating artery Basilar artery 5% Posterior cerebral artery Vertebral artery Figure 48.13 Common sites of aneurysm in the circle of Willis. TABLE 48.4 World Federation of Neurosurgical Societies (WFNS) grading of subarachnoid haemorrhage. a Grade Glasgow Coma Scale Focal de /f_i cits I 15 – II 13–14 – III 13–14 + IV 7–12 ± V 3–9 ± a Focal

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The sensitivity of CT scan, however, deteriorates to less than 50% at 1 week after a bleed. In light of this, patients with a suggestive history and negative CT scan will require lum bar puncture, especially where presentation is delayed. The CSF supernatant should be analysed by spectrophotometry (visual inspection is not reliable) for the spectra of haemoglo bin breakdown products oxyhaemoglobin and bilirubin. These e present in samples taken at least 6 and preferably 12 /uni00A0 hours ar after SAH, but not in CSF mixed with fresh blood due to trau e to exclude matic puncture and analysed immediately . Failur SAH with an adequate lumbar puncture sample can result in diagnostic confusion and overtreatment. Aneurysms can be visualised by CT and magnetic reso gold standard remains digital nance angiography , but the subtraction angiography (DSA), which involves access to both vertebral and carotid arteries through the femoral artery under local anaesthetic. This allows visualisation of the vascular y by injection of contrast medium with simultaneous anatom radiographic screening ( Figure 48.15 ). The serious potential risks include ischaemic stroke or arterial dissection (1–2%), and renal failure or allergic reactions attributable to contrast.

Figure 48.15 There is a small saccular aneurysm of the pericallosal branch of the anterior cerebral artery.

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