

Surgical interventional management

Surgical/interventional management

Aneurysms may be removed from the circulation surgically by craniotomy and 'clipping' or by endovascular embolisation, also known as 'coiling' (Figure 48.16). Sometimes mesh stents may also be used to help secure the metal coils within the aneurysm sac as part of this procedure. Class 1 evidence suggests that coiling has slightly better outcomes where feasible, but clipping remains necessary or preferable in many cases; these decisions are shared between surgeons, radiologists and the neurologist. The rebleed risk of 4% in the first 24 hours then 1.5% thereafter is quoted for untreated aneurysms; 80% of patients who rebleed have an eventual poor outcome. For this reason, and to permit optimal management of vasospasm, the current consensus favours early intervention, despite the surgical challenges presented by brain swelling and blood load. Unruptured aneurysms represent a thorny management problem: incidentally detected small anterior circulation aneurysms represent a minimal bleeding risk. Screening, even in high-risk groups, is therefore of questionable benefit.

(b) Figure 48.16 (a) A giant aneurysm of the internal carotid artery. (b) Angiographic embolisation (coiling) of the giant aneurysm. Note the single displaced coil passing into the distal internal carotid artery and then the middle cerebral artery.

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