

disease

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The principles of arterial surgery outlined above can be applied at other arterial sites. Carotid stenosis (at the carotid bifurcation in the neck) may cause TIAs. These short-lived mini-strokes are often recurrent and cause unilateral motor or sensory loss in the arm, leg or face, transient blindness (amaurosis fugax) or speech impairment (dysphasia). They are caused by distal embolisation of platelet thrombi that form on the atheromatous plaque into the cerebral circulation. They are a warning of impending major stroke. Patients should be assessed with a duplex scan. If a tight stenosis ($>50\%$) is detected, carotid endarterectomy should be offered (Figure 61.23). This involves clamping the vessels, an arteriotomy in the common carotid artery continued up into the internal carotid artery through the diseased segment, removal of the occlusive disease (endarterectomy) and closure of the arteriotomy, often with a patch. Many surgeons also use a temporary shunt to maintain cerebral blood flow while the carotid system is clamped. Subclavian artery stenosis may cause claudication in the arm or digital ischaemia from distal embolisation. It may be treated by angioplasty or surgical bypass. Sometimes subclavian

Indications for carotid endarterectomy in symptomatic patients

/uni25CF /uni25CF /uni25CF /uni25CF - /uni25CF /uni25CF artery lesions are associated with neck pathology, such as a cervical rib, which should be removed during arterial repair (Figure 61.24). Subclavian steal syndrome may occur if the first part of the subclavian artery is occluded. Arm exercise causes syncope because of reversed flow in the vertebral artery, leading to cerebral ischaemia. It can be treated by angioplasty or surgery and is rare. Mesenteric artery occlusive disease may cause pain after eating (intestinal angina) and weight loss. In general, two of the three enteric vessels (coeliac axis, superior mesenteric artery, inferior mesenteric artery) must be occluded to produce symptoms and other intestinal disorders must be excluded before treatment with PTA, endarterectomy or bypass (Figure 61.25). Renal artery stenosis may cause hypertension and eventual renal failure. Although it is possible to improve renal blood flow with PTA or surgery, the mainstays of treatment are drugs to control hypertension, diabetes, etc.

Figure 61.23 Carotid stenosis. A unilateral localised stenosis suitable for operation. CC, common carotid; EC, external carotid; IC, internal carotid. 50% or greater carotid stenosis and: Ipsilateral amaurosis fugax or monocular blindness Contralateral facial paralysis or paraesthesia Arm/leg paralysis or paraesthesia Hemianopia Dysphasia (if dominant hemisphere) Sensory or visual inattention/neglect

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