

# Embolic occlusion

## Embolic occlusion

An embolus is an object that has become lodged in a vessel and causes obstruction, having been carried in the bloodstream from another site. It is often a thrombus that has become detached from the heart or a more proximal vessel. Sources include the left atrium in atrial fibrillation; a left ventricular mural thrombus following myocardial infarction; vegetations on heart valves in infective endocarditis; and thrombi in aneurysms and on atherosclerotic plaques. Emboli may lodge in any organ and cause ischaemic symptoms.

**Arm and leg** – pain, pallor, paraesthesia, paralysis and pulselessness (the five Ps of acute limb ischaemia [ALI]) (see Acute limb ischaemia) (Figure 61.29). Acute arterial occlusion due to an embolus differs from occlusion due to thrombosis on pre-existing atheroma; in the latter (Figures 61.30 and 61.31). It is essential to differentiate between the two as they require different management.

**Brain** – the middle cerebral artery (or its branches) is most commonly affected, resulting in TIA or stroke.

**Retina** – amaurosis fugax is fleeting blindness caused by a minute thrombus emanating from an atheromatous plaque in the carotid artery passing into the central retinal artery. Lasting obstruction causes permanent blindness.

**Mesenteric vessels** – possible gangrene and perforation of the corresponding loop of intestine.

Embolus Pain Paralysis Pallor Pulseless Figure 61.29 The symptoms and signs of embolism (four Ps). The fifth feature, anaesthesia, is often stated to be paraesthesia (the fifth P), but, in truth, complete loss of sensation in the toes and feet is characteristic. Figure 61.30 Aortic bifurcation embolus. The source of the embolus is a recent myocardial infarct or atrial fibrillation. This causes severe, dramatic symptoms.

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