ANEURYSM OF THE POPLITEAL ARTERY FROM PERFORATION BY A CANCELLOUS EXOSTOSIS OF THE FEMUR

Report of a Case

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Cancellous exostoses are common but perforation of an artery by such an exostosis must be of great rarity. That such an event should have led to the formation of a large saccular aneurysm which proved to be reparable by endo-aneurysmorrhaphy is sufficiently remarkable to be worthy of record.

CASE REPORT

A Sinhalese man aged twenty-two years was admitted to the General Hospital, Colombo, on account of a painful swelling behind the left knee which had been noted for seventeen days. There had been no injury. The swelling was soft, fluctuant, warm and tender; the overlying skin was normal in texture; and the margins of the swelling could not be defined clearly. The swelling did not pulsate. The foot and the leg were warm but pulses could not be felt in the dorsalis pedis or posterior tibial arteries. On the medial aspect of the thigh in front of the swelling was a nodular mass of bone arising from the lower end of the femur. Similar nodular masses of bone were seen and felt arising from the lower end of the right femur, from the upper ends of both tibiae, the upper ends of both humeri and the lower ends of both radii; there was deformity at the wrists but the patient had little disability from these exostoses. There was no family history of similar bone tumours or deformities.

The ovoid swelling behind the left knee was recognised as an aneurysm of the popliteal artery and an operation was performed under spinal anaesthesia. An incision four inches long was made on the medial surface of the thigh, the deep fascia divided, the sartorius muscle retracted backwards, and the bursa capping the bony mass opened, thus exposing a large cartilage-capped exostosis with a pedicle sloping towards the lower end of the femoral shaft. The exostosis was removed. A large ovoid aneurysm of the popliteal artery was then exposed, lying behind the adductor magnus muscle and filling the popliteal space. The popliteal artery

Fig. 1
Diagram depicting principal physical signs of the case.
was traced through the opening in the adductor magnus muscle to the upper pole of the aneurysm which was exposed through a second, midline, incision. The medial and lateral popliteal nerves coursed over the posterior surface of the aneurysm. At the lower pole the popliteal artery was seen passing deep under the two heads of the gastrocnemius muscle. Two temporary tape ligatures were placed at the upper and lower poles of the aneurysm, which was opened by a vertical incision on its medial surface. It contained dark red clot, and when this had been wiped away there was violent haemorrhage which was arrested by digital pressure. There was a small hole on the front wall of the vessel directly opposite the base of the pedicle of the exostosis. Two small rubber-shod clamps were placed above and below the hole, which just admitted the tip of a finger, and it was closed by fine cotton thread sutures soaked in vaseline. The patient made a good recovery. Pulses did not return in the dorsalis pedis or posterior tibial arteries but the foot remained warm, and although slight oedema of the foot developed after four days this did not persist and the patient left hospital after two months, walking with ease.