More patients are undergoing pituitary and suprasellar surgery. Careful monitoring of such patients is necessary to avoid the morbidity associated with both diabetes insipidus and with syndrome of inappropriate antidiuresis. Such electrolyte problems are most likely to be seen by specialist neurosurgical or endocrine units but may be of relevance to other specialities as this can also occur after head injury. In our patient’s case, presentation was to an infectious diseases unit.


Figure 1 Venogram of the right leg showing extensive occlusion of the deep veins of the calf with lateral displacement and stricture of the popliteal vein

Popliteal vein thrombosis associated with femoral osteochondroma and popliteal artery pseudoaneurysm

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Summary

Deep vein thrombosis is a common condition thought to be caused by impaired venous blood flow or hypercoagulable blood states. However, often no predisposing cause can be found. We describe a deep vein thrombosis formed in association with femoral osteochondroma and popliteal artery pseudoaneurysm. It is an interesting combination that has only been described once before.

Keywords: deep vein thrombosis, femoral osteochondroma, popliteal artery pseudoaneurysm

Case report

A 37-year-old office worker was admitted with an acutely swollen, painful right calf. She had been taking the oral contraceptive pill since the birth of her child two and a half years previously and was otherwise fit and well. She was a keen horse-rider but had no history of trauma. On examination the right calf was significantly swollen, hot, tense, and tender. The popliteal fossa was noted to be very hard but the knee had a full range of movement. Peripheral pulses were normal. A diagnosis of deep vein thrombosis was made. Venography (figure 1) confirmed extensive occlusion of the deep veins of the calf but those of the thigh and pelvis were not involved. The popliteal vein was noted to be displaced laterally by an osteochondroma and there appeared to be a tight localised stricture at the junction of the popliteal vein with the deep femoral vein. An ultrasound scan of the popliteal fossa revealed a large (6 × 2.5 cm) popliteal pseudoaneurysm arising from the posterior aspect of the popliteal artery. A plain radiograph of the knee showed the presence of several femoral exostoses just above the knee joint, surrounding the pseudoaneurysm. The knee joint itself looked normal. An arteriogram (figure 2) confirmed the popliteal pseudoaneurysm and its relation to the osteochondroma. It arose at the junction of the superficial femoral artery with the popliteal artery and contained a large amount of thrombus.

She underwent ligation of the popliteal artery and bypass grafting using the long saphenous vein, from which she has made a good recovery.

Discussion

Osteochondroma is a cartilage-capped bony exostosis. It is the commonest benign tumour of bone. The lesion may be single or multiple and may arise in any bone formed by endochondral ossification, but the long bone metaphyses are the commonest sites. They are usually asymptomatic, but recognised comp-
Macrophages therefore limit replication and reduce infectivity of the parasite, thereby limiting both replication and disease.

Figure 2 Arteriogram of the right lower limb demonstrating the popliteal pseudoaneurysm and its close relation to the large sessile osteochondroma.

The complications include fracture through the tumour pedicle, restriction of joint movement, nerve compression and malignant degeneration. Popliteal pseudoaneurysm is a well recognised but rare complication of femoral osteochondroma.\(^1\)\(^2\) It has been suggested that this is due to physical trauma to the arterial wall by pointed tumour outgrowths which work their way into the vessel wall.\(^1\)\(^2\) In this case, there was no tumour spike, and no part of the tumour extended into the vessel wall. However, blunt frictional force of the tumour could have weakened the vessel wall, allowing subsequent pseudoaneurysm formation.

Popliteal pseudoaneurysm usually presents as a painful pulsatile swelling in the popliteal fossa, often with reduced distal pulses.\(^1\) In our case the pseudoaneurysm itself was asymptomatic, and its presence was only highlighted on investigation of the deep vein thrombosis. This deep vein thrombosis is therefore likely to have arisen as a result of impaired venous return secondary to popliteal vein compression by the pseudoaneurysm, formed as a result of chronic low grade trauma from the osteochondroma. This possibility should be considered in patients with popliteal vein thrombosis and the presence of an underlying osteochondroma.

Learning points

- the possibility of osteochondroma and/or pseudoaneurysm should be considered in all patients with popliteal vein thrombosis
- the plain radiograph should be scrutinised for osteochondroma

Plain radiograph scrutinised for osteochondroma. Although the osteochondroma was not excised in this case, this should be considered in future cases.

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