BRIEF REPORT

ACCESSORY ABDUCTOR HALLUCIS CAUSING ENTRAPMENT
OF THE POSTERIOR TIBIAL NERVE

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A young man, known to have had juvenile rheumatoid arthritis since the age of seven, was seen again at the age of 24 when he developed excruciating pain over the medial aspect of his right foot and ankle. The pain, of four days' duration, was aggravated by any movement of the foot or ankle, by weight-bearing and by pressure. There was no known relieving factor nor any history of injury.

On examination, there was slight swelling behind the medial malleolus and the tibialis posterior was in spasm. The posterior tibial nerve was markedly thickened and tender. Percussion of the nerve just behind the malleolus increased the intensity of his symptoms. He had altered sensation along the medial border of the foot and great toe, but no motor involvement. A provisional diagnosis of entrapment of the posterior tibial nerve due to rheumatoid tenosynovitis was made.

Electromyography and nerve conduction studies revealed attenuation in amplitude of the sensory action potential from the right posterior tibial nerve (2 μV) as compared with the left (7 μV), though the latency and velocity were normal. The motor component was unaffected. After a four-week trial with non-steroidal anti-inflammatory drugs, the right posterior tibial nerve was surgically decompressed.

Under general anaesthesia and a tourniquet, an incision was made about 2.5 cm behind the medial malleolus, commencing 5 cm proximal to its tip and extending to 2.5 cm below it. On incising the subcutaneous tissue, muscle fibres were visible in the proximal part of the wound (Fig. 1) originating from the under surface of the fascia covering the posterior tibial nerve. This fascia was incised to reflect the origin of the muscle posteriorly and expose the thickened nerve. A muscle belly was then seen to pass deep to the nerve (Fig. 2), through the tarsal tunnel and to merge with the main abductor hallucis muscle. It had no separate nerve supply. This accessory belly was excised. Since it was felt that the entrapment was not in the tarsal tunnel but proximal to it, the tunnel was not decompressed and the accessory muscle belly was cut at the proximal edge of the tunnel.

The patient had complete relief from his symptoms by the evening after operation, walked normally the next morning, and has remained asymptomatic since. Discussion. An accessory abductor hallucis muscle causing entrapment of the posterior tibial nerve has been described by Edwards et al. (1969) and mentioned by Menon et al. (1980), but in our case the muscle origin was quite different. It arose from the fascia superficial to the posterior tibial nerve about 4 cm proximal to the tip of

Fig. 1

Fig. 2

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the medial malleolus. The ensuing belly was deep to the nerve distally, thus forming more than half a circle around the nerve before passing through the tarsal tunnel, to be inserted into the middle of the main abductor hallucis muscle. It is interesting to speculate why a muscle present since birth should become a cause of symptoms after 24 years.

AN UNUSUAL PRESENTATION OF OSTEOARTHRITIS OF THE HIP

J. M. H. PATERSON

The differential diagnosis of a lump in the groin is a catechism known to every medical student. The following case serves as a reminder of one of the less common causes.

Case report. A 77-year-old woman presented to a general surgical unit with a 12-month history of a painful swelling in the left groin. Examination revealed a 7 cm × 5 cm mass, firm, smooth, non-pulsatile and non-reducible, lying below the inguinal ligament and lateral to the femoral artery. Restriction of hip movements was attributed to pain from the swelling rather than intrinsic hip pathology. Nevertheless, after an inconclusive needle biopsy of the swelling, she was referred for an orthopaedic opinion.

Further questioning elicited a history of painful limp which pre-dated the appearance of the swelling. A radiograph of the left hip showed a moderate degree of degenerative change, and computerised tomography showed an appearance suggestive of a distended joint capsule (Fig. 1).

Exploration confirmed that the swelling was due to diffuse distension of the anterior joint capsule by synovial fluid. The synovium itself was inflamed, and there was much erosion of the articular surfaces. The capsular bulge was excised, and an extensive synovectomy performed. The patient made a good recovery. Her hip remained stiff, but the pain was relieved to the extent that nine months after operation she could walk with no restriction and no need for analgesia.

Histological examination of the tissue excised showed oedematous synovium with only a sparse chronic inflammatory cell infiltrate.

Discussion. Jeremy (1969) has reported a case of rheumatoid arthritis of the hip presenting as a lump in the groin, and standard rheumatological texts note that degenerative disease of the hip may occasionally present in this way. The swelling may be caused by a distended iliopsoas bursa communicating with the joint proper, such communication being present in 15% of all hips (Kelley et al. 1985). In the present case, no such communication was seen, the swelling being caused by the distended joint itself.

The student of surgery is unlikely to find any reference to hip pathology in the consideration of swellings in the groin (Browse 1978; Hamilton Bailey 1980) and may overlook signs of joint stiffness and limp. Orthopaedic and general surgeons should be aware of the possibility of degenerative and inflammatory hip disease presenting in this manner.

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REFERENCES


