Letters

GIANT CELL TUMOUR OF THE TENDON SHEATH - AN UNUSUAL CAUSE FOR LOCKING OF THE KNEE JOINT.

Editor,

Locking of the knee is a common presentation at orthopaedic outpatient departments. These patients normally require magnetic resonance imaging (MRI) where there is a clinical suspicion of a soft tissue lesion. The most common lesions are meniscal tears and typically present with associated pain. We present an unusual case of a giant cell tumour arising from the tendon sheath causing painless locking of the knee joint.

Case report: A 39-year-old male presented with a twelve-month history of painless locking in his left knee. He worked as a roofer and found his symptoms worse when climbing ladders. He was referred by his general practitioner who suspected a meniscal tear. There was no history of any trauma to the knee. Clinical examination revealed no swelling, effusion or joint line tenderness around the knee, and a full range of movement. A mass arising from the medial aspect of his patella, which was mobile within the knee joint, was palpable. The lesion was firm but not bony in nature, and was not visible on X-ray. The mass was presumed to be a soft tissue lesion and, because of the hazards associated with his occupation, the patient proceeded directly to arthroscopy rather than MRI. At arthroscopy a large intra-articular lesion was identified originating posterior to the medial patella. The size of the lesion prohibited removal during arthroscopy, and was therefore excised in its entirety via a medial parapatellar incision. Histology showed the specimen to be a giant cell tumour of the tendon sheath measuring 40 x 35 x 15mm (Fig 1). Postoperative recovery was uneventful and at two-month review the patients symptoms had resolved.

Discussion: Giant cell tumours of the tendon sheath (GCTTS) are benign soft tissue masses, typically found on the flexor surface of the hand and wrist[1]. They are more common in males with an average age of presentation of 30-50 years[2]. These tumours are classified in two types; the common localized type and the rare diffuse type. The more localised form accounts for 88% of cases effecting the hands and feet arising from the synovium of the tendon sheath[2]. It is unusual for giant cell tumours to involve larger joints and to be intra-articular. In large joints diagnosis is difficult because the signs and symptoms can be non-specific[3]. The rare diffuse form, occurring in joints such as the knee and ankle, is considered to be an extra-articular extension of a primary intra-articular pigmented villonodular synovitis (PVNS). PVNS and GCTTS share similar histological characteristics and are regarded as different manifestations of synovial proliferations[2].

As in this case, plain X-rays are often of limited benefit. MRI is an important diagnostic modality. T1 and T2 weighted images show a low intensity homogenous signal for a GCTTS due to the presence of dense fibrous tissue[3].

Ideally GCTTS should be completely excised, but may have to be incomplete due to the nature of spread into the surrounding synovium[4]. Zhang *et al.* reviewed 12 cases of intra-articular GCTTS within the knee, and reported that nine cases were misdiagnosed with meniscal injuries or chronic synovitis. Only three cases had the diagnosis confirmed by MRI prior to surgery[5]. They found no incidence of recurrence in any of the cases. Further studies have looked at recurrence and quote figures around 10-20% rising to 44% if excision was inadequate[2].

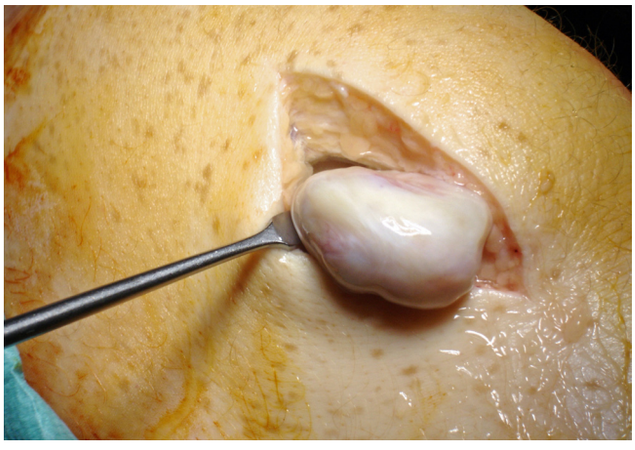

Fig 1. Giant cell tumour of the tendon sheath measuring 40 x 35 x 15mm being excised through a medial parapatellar incision.

Conclusion: This case highlights that GCTTS, although rare, can be an unusual cause for locking of the knee joint. Its presentation may mimic a meniscal tear, but a history of no previous trauma to the knee and painless locking are important discriminating symptoms.

Conflicts of Interest: None declared.

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CLIMATE CHANGE AND ITS IMPACT ON HEALTH

Editor,

On the 29th January 2008, a landmark conference entitled 'Climate Change and its Impact on Health' took place at the Royal College of Physicians in London. Although the