Intra-articular lipoma of the hip

A case report

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Summary. *This report describes a rare intra-articular lipoma of the hip which developed in a 31-year-old male after a football injury. A plain X-ray and an MRI scan of the hip showed no bony abnormalities. After the patient failed to improve with a rehabilitation programme, arthroscopy of the hip was performed, revealing a lump in the acetabular fossa associated with a labral tear. A histopathological analysis confirmed the diagnosis of an intra-articular lipoma of the hip joint, which to our knowledge is the first reported case in the literature.*

Résumé. *Ce report décrit un rare lipome intrarticulaire de la hanche, qui se développe chez un homme de 31 ans, après une blessure causée par le football. Aucune anomalie osseuse n'a été relevée par les rayons X et le MRI. On a fait une arthroscopie de la hanche que le patient n'avait pas amélioré après un programme de réhabilitation, qui révélait un bloc dans la fossa acetabulaire associé à une lésion du bourrelet cotyloïdien. L'analyse histopathologique a confirmé le diagnostic de lipome intrarticulaire de l'hanche qui est, d'après nous, la premier cas reporté dans la littérature.*

Introduction

Lipomas are the most common benign neoplasm of the soft tissues [6], but involvement with intra-articular structures is rare [1, 9]. Single lipomas have been reported in the knee [1, 2, 5, 8], but to the authors' knowledge this is the first report of one in the hip.

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Case report

A 31-year-old male had an 18-month history of pain in his left hip as the result of a football injury. The pain was aggravated by weight-bearing and was not totally relieved by non-steroidal anti-inflammatory drugs. Plain X-rays of the pelvis and an MRI scan were normal. A physical examination revealed mechanical symptoms localized to the joint, characterized by groin pain on extreme passive flexion and external rotation.

Because of the failure to respond to conservative treatment, including activity modification, anti-inflammatory medications, and physiotherapy, arthroscopy was performed. The procedure was carried out under general anaesthesia, with the patient positioned in the lateral position, arthroscopic access being gained through the supratrochanteric portal [3] using a specialist hip distractor. Intraoperatively, an encapsulated, pedunculated mass was identified lying within the cotyloid fossa

Fig. 1. Arthroscopic view of the lipoma (arrow) between the femoral head (f) and the lunate articular surface of the acetabulum (a)

of the acetabulum (Fig. 1). An antero-inferior labral tear was also seen and treated by partial labrectomy. The lump was carefully excised under arthroscopic control and sent for histopathological examination. The resected specimen consisted of a light yellow adipose tissue, covered by a fibrous capsule, measuring 9×4 mm. Microscopic examination showed mature adipose tissue, with a few small blood vessels, covered by a fibrous capsule.

The patient's postoperative course was uneventful, with immediate reduction of pain. His progress was followed up in the outpatient clinic for 3 months, and he showed a constant improvement in his clinical condition.

Discussion

True lipomas of the joint are rare intra-articular lesions, described previously in the knee but never observed in the hip [1, 2, 5, 6, 8, 9]. Usually, these are considered synovial-like neoplasms [4, 9] composed of lobules of mature adipocytes delineated by a thin fibrous capsule. They originate from the sub-synovial layer of supporting tissue consisting of fibroareolar tissue which contains some collagen, fat, lymph channels, nerves, and blood vessels [1]. Lipomas can be sessile or pedunculated, and the latter form may produce pain if it twists on its stalk and becomes ischaemic [9]. The pathogenesis of the lesion is uncertain, and some authors suggest that trauma can be responsible for its formation [7, 8, 10]. This theory is supported in our case by the presence of an antero-inferior labral tear that was a result of an injury suffered by the patient some months earlier.

Lipomas usually have CT and MRI signal characteristics similar to those of subcutaneous fat [6], and are therefore clearly visible with these two examinations. However, as demonstrated in this report, if the

lesion is too small, it could be difficult to recognise. Arthroscopy is a helpful tool in the diagnosis and treatment. This case is reported in order to highlight the diagnosis of intra-articular lipoma as a rare cause of hip symptoms; such a diagnosis should be considered when pain or mechanical dysfunction of the hip occurs in patients with otherwise negative investigations.

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