

Mega-Exostosis of the Anteroinferior Iliac Spine in Young Adult: A Case Report

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Abstract:

Introduction: Extra-articular hip impingement caused by the anterior inferior iliac spine (AIIS) is an uncommon cause of groin pain in young. Calcific tendinopathy of the direct head of the rectus muscle, labral tears, and bone tumor are some causes of hip pain.

Case Report: We report a case of mega-exostosis of right AIIS in a young military patient. Although the most common treatment for femoro-acetabular impingement is arthroscopic decompression, we used the modified Smith Petersen small anterior approach. and osteotomy, this technique allowed us to remove the voluminous exostosis.

Discussion: The patient benefited extensively from the chosen treatment returned to normal activity, with an improvement of 34 points in the modified Harris Hip Score. The bone formation was a consequence of exostosis of AIIS and was the cause of hip impingement

Key words: osteochondroma; anterior inferior iliac spine; complet excision

Introduction

Osteochondromas are the most common benign bone tumours, accounting for 20-50% of benign bone tumours and 9% of all bone tumours [1,2]. The majority are solitary and occur due to sporadic mutations, which is different from multiple osteochondromatosis which is an autosomal dominant trait [3]

Case report

A 26-year-old male with a 1-year history of right hip pain exacerbated after simple hip hyperflexion trauma. The pain was irradiated along the course of the rectus femur muscle

He did not remember direct or indirect trauma to the right hip in the past, nor sports injuries. The past medical history was insignificant; there was no history of antecedent surgery or radiation exposure. The general physical and systemic examinations were within normal limits. Recently he presented with antalgic limps, running and jumping aggravated the pain, as well as sitting for a long period of time. Objectively he presented

pain and hard swelling on palpation over the AIIS. The range of motion (ROM) of the right hip was limited to 60° of flexion, 10° of internal rotation, 40° of external rotation and 30° of hip abduction compared with the contralateral side which had normal ROM values (120°, 30°, 45°, and 45° respectively). The right hip extension was equal to the contralateral hip. Initial standard anteroposterior (AP) view was obtained. Radiographs demonstrated an irregular bone formation at the level of the AIIS (Figure 1). The exostosis of AIIS with an anteroinferior course and contiguity with the origin of the anterior rectus muscle was confirmed by computed tomography (CT) scan (Figure 2). The hematological and biochemical tests were within normal limits. The tests performed suggested a benign lesion, most probably an exostosis. Excisional surgery of the exostosis (Figure 3) and histological examination were suggested to the young patient. Excision surgery was performed through a 10 cm incision with an anterior, modified Smith-Petersen approach. The mass was removed using an osteotome. After surgery we performed standard X-ray. The patient's recovery period of 4 weeks has fully re-integrated him into his daily activities.



Figure 1: An AP radiograph of the pelvis showed a bony projection (arrow) from the right anterior iliac blade toward the hip joint



Figure 2: Ct Scan Showing Exostosis Right Hip

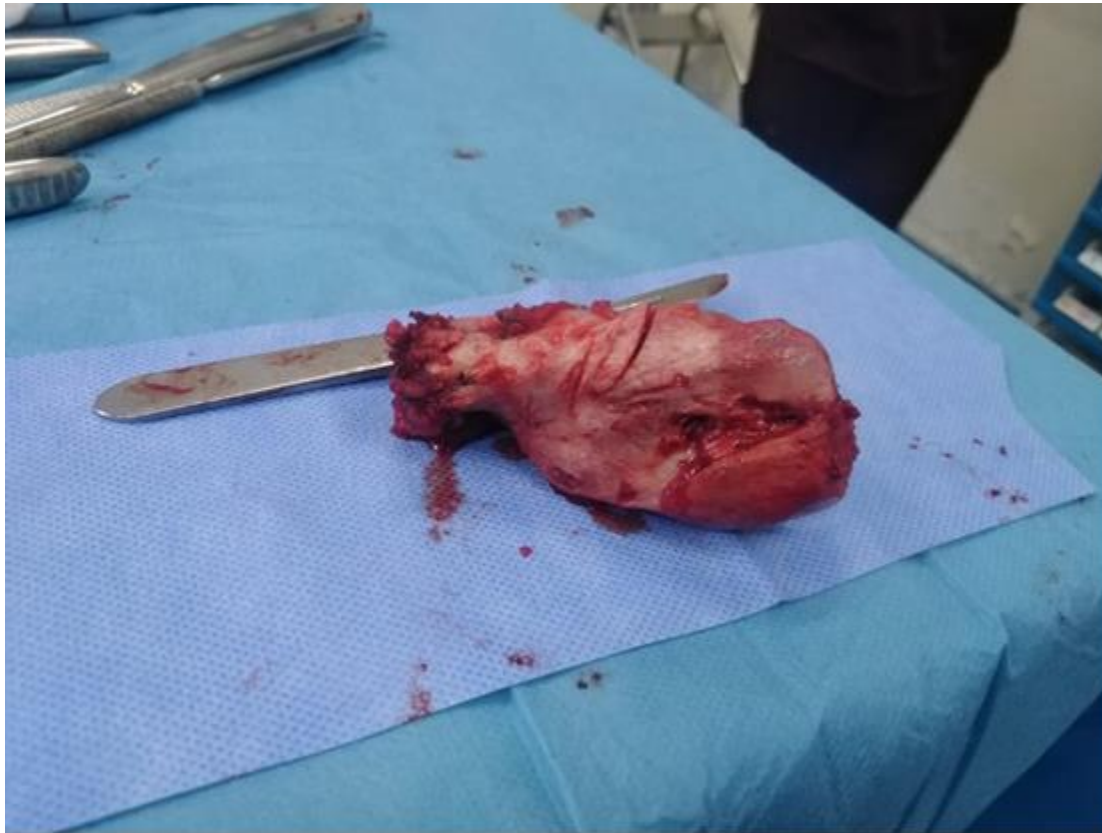


Figure 3: Total excision of osteochondroma

Discussion:

Osteocartilaginous exostoses are bony protuberances enveloped by a cartilaginous layer, appearing only during the growth period[4]. Although their congenital origin brings them closer to hamartomas, they are categorized as benign bone tumors[5]. Two clinical forms have been identified: solitary exostoses and exostosing disease [6]. Osteochondromas are frequently observed in adolescents and more rarely in newborns[7]. In the case of solitary exostosis, there is no disparity between the sexes. These tumors show a marked preference for the metaphyseal side of the growth plate, which is in full activity. Frequently, X-rays and CT scans deliver precise diagnostic insights, facilitating the anatomical characterization of the lesion [8]. In imaging, osteochondromas typically present as pedicles or projections resembling sessile bone. Recurrence of exostosis is exceptionally rare and usually occurs when fragments of the cartilage cap remain after excision[5]. For this reason, excision must be performed extraperiosteally. Moreover, recurrence should raise concerns about possible malignant transformation [9]. This case was unique because of the unique location of the osteochondroma on the AIIS, which was accompanied by the Femoroacetabular impingement (FAI) and due to the rarity of this lesion in the flat bone and the diagnostic value of plain radiography in making diagnosis.[10]

Conclusions

We reported a case of iliac blade osteochondroma from the Anterior inferior Iliac Spine in a 26-year-old patient that was diagnosed by plain radiograph and histological confirmation. The patient was managed by en bloc resection; thus highlighting the role of plain radiography in evaluating bone tumors

Conflict of Interest

No Conflict of Interest

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