Sciatica due to Osteochondroma of Proximal Femur: A Case report

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Abstract

A 68 year old female patient presented with bony swelling on the proximal part of the posterior aspect of thigh from childhood. Since 6 months she started complaining tingling and numbness in distribution of sciatic nerve. The X ray and later the MRI confirmed it to be Osteochondroma. The surgical excision of the osteochondroma confirmed the diagnosis histopathologically. Post operatively patient was relieved of all symptoms and recovered uneventfully.

Introduction

Osteochondroma is the most common benign bone tumor, accounting 35% of benign and 9% of all malignant tumors. Most are asymptomatic but can occasionally cause mechanical symptoms depending on their location and size. An osteochondroma of proximal femur can present with limb length discrepancy, increased femoral anteversion, valgus angulation and acetabular dysplasia, bursal inflammation, pain and occasionally compression on the sciatic nerve.

Case Report

A 68 year old female presented with complaints of radiating pain with paraesthesias in left lower limb since 5 to 6 months which were affecting her activities of daily living. Patient had no history of trauma, weight lifting or constitutional symptoms.

On examination a bony hard swelling was palpable on the supero lateral quadrant of left buttock.

Nerve stretch tests and Faber’s test were positive. No distal neurological deficit was found.

Investigations

X ray Pelvis with both hips showed pedunculated bony excrescence with well-defined margins at the greater trochanter.

MRI of left hip showed sessile bony excrescence from the proximal femur and greater trochanter, possibly Osteochondroma abutting and stretching the left sciatic nerve. (Fig. No 3)

Treatment

In right lateral position, a posterior approach to the hip was taken with an incision of 12 cm incision centered over the swelling along the posterior border of greater trochanter.

Gluteus maximus and the short external rotators were split and Osteochondroma was exposed.

Fine Dissection was done and Sciatic Nerve was identified and was found under the tumor.

Neurolysis of the sciatic nerve was performed. (Fig. No. 4)

A firm lobulated sessile mass of 10 cms x 10 cms, encapsulated with fibrous tissue which is continuous with the periosteum of proximal femur was seen. On removal of fibrous capsule revealed a shiny smooth cartilaginous covering. Osteochondroma was excised extraperiosteally en block and the tumor bed was curetted out completely. The defect that was left was filled with methyl methacrylate cement. Haemostasis was achieved and the wound was closed over a suction drain. The tumor mass collected was sent for histopathology examination (Fig. No. 5)

Post operative care: Histopathology report revealed calcified bony fragments with underlined marrow. Focal areas of calcification were identified with no evidence of neoplastic activity. Intravenous antibiotics were continued for 5 days. Static quadriceps and Ankle toe movements were started on Day 2 post operative day after the drain was removed. Regular dressings were done on Day 2, 5, 8 and 12. Sutures were removed.

Patient is walking comfortably.

Post operative x rays show complete excision of osteochondroma with bone cement. (Fig. No. 6 & 7)

Discussion

Osteochondromas are cartilage capped bony growths produced by progressive enchondral ossification from
aberrant growths plate cartilage rests. The cortex of an Osteochondroma is continuous with that of the bone from which it arises. Osteochondromas can occur as solitary lesions with no known genetic predisposition whereas multiple lesions occur in hereditary multiple exostosis also Multiple osteochondromatosis (Diaphyseal aclasis). Incidence of malignant transformation in multiple osteochondroma is 10% against 1% in solitary osteochondroma; This patient is being presented as this is an unusual presentation at this age. We wanted to diagnose this case after ruling out any malignant change. Also that this presentation can mimic sciatica and/or lumbar canal stenosis so we wanted to confirm the pathology and offer a cure to this patient.

The common presenting feature of Osteochondromas is mechanical pain and nerve impingement. This case represents an unusual type of sciatica due to pedunculated solitary femoral osteochondroma.

The differential diagnosis for sciatic nerve compression is substantial & can be divided into intraspinal, extraspinal, pelvic and extrapelvic categories of anatomical etiology. Other potential sites include the hip joint, the pelvis as in impingement by obturator internus muscle, pelvic bone tumors such as Osteochondromas, as in this case. Other less common causes of sciatic nerve compression are vascular malformations, infectious disease and tumors of bone & soft tissue. Paik et al reported a case of exostosis transformed to a chondrosarcoma. The patient has 2 surgeries first retroperitoneal approach for the mass & then posterior approach for chondrosarcoma. Turan et al reported a femoral neck osteochondroma with signs of sciatic nerve compression including weakness of toe & ankle dorsiflexion and diminished ankle reflex. They had a sessile growth unlike in our case which was pedunculated. In our patient there was no weakness in distribution of sciatic nerve. We protected the medial circumflex artery during the approach to the pedunculated mass. We had no post operative weakness in sciatic nerve and the recovery was uneventful.

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Illustrations

Illustration 1

Fig 1

Illustration 2

Fig 2
Illustration 3

Fig 3

[Image of a medical illustration]

Illustration 4

Fig 4

[Image of a medical illustration]
Illustration 5

Fig 5

![Image](http://example.com/image1.png)

Illustration 6

Fig 6

![Image](http://example.com/image2.png)
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