

Osteochondroma at its rarest site

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What to Learn from this Article?

A rare presentation of huge calcific mass (osteochondroma) in an elderly female.

Abstract

Introduction: Osteochondromas usually arise from the metaphyseal region of the growing skeleton but extraskeletal cartilaginous tumors are rarest.

Case Report: A 65 year old woman presented with anterior knee pain and inability to flex her knee more than 90° since 1 year. Clinical examination and imaging studies revealed a nodular calcific mass in the anterior portion of the knee i.e. patella. Following excision, histopathology confirmed the diagnosis of extra-osseous osteochondroma-like soft tissue mass, with no recurrence in 36 weeks.

Conclusion: An integrated clinical-pathologic diagnosis helps to clarify the nature of extraskeletal cartilaginous tumors that can arise at unusual anatomic site viz. patella. Complete local surgical excision is the management of choice.

Keywords: osteochondroma, clinical, patella, pathological, excision, extraskeletal cartilaginous.

Introduction

Osteochondromas usually develop in relation to the periosteum, and occur around the growth plate of long bones, especially the knee. The tumor usually stops to grow with closure of the growth plate [1] BUT, some of these tumors continue to grow after skeletal maturity [2] we report a patient with an extra-osseous osteochondroma-like soft tissue mass in the anterior portion of the knee joint.

Case report

65 Years old women presented with one-year history of anterior knee pain and unable to flex knee more than 90 degree. There was no history of trauma, constitutional symptoms, fever, loss of weight,

morning stiffness and involvement of other joints.

Clinical examination shows Firm nodular mass was present in the anterior part of the knee, extending superiorly, inferiorly, medially and laterally as well. There was no joint line tenderness present Range of motion was Flexion was restricted to 90 degree and full extension was possible. Neurovascular examination was normal Serology was normal. Surgical excision of mass was done. Intraoperatively Mass involves complete patella but femoral condyle, tibial condyle and patellar tendon was not involved. Post operatively Recovery was uneventful and patient returned to activity of daily living after 2 weeks. She regained 110 degree of flexion Histopathological examination reveals Osteochondroma features with no evidence of malignancy After 6 months patient

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Figure 1: Pre Operative X-Ray



Figure 2: Intraoperative

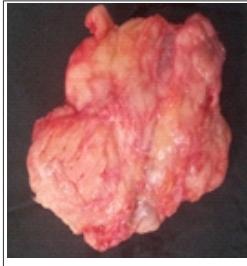


Figure 3: Mass excised



Figure 4: Post Op X-ray

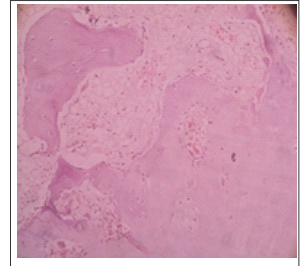


Figure 5: Histopathological picture

was asymptomatic and there was no clinical and radiological evidence of reoccurrence.

Discussion

Large osteochondromas involving the joint capsule or par-articular soft tissues adjacent to a joint are rare osteocartilaginous tumors, first described by Jaffe in 1958 [3]. Subsequently, these lesions have been reported using various terms such as par-articular osteochondroma [4, 5,6], intracapsular chondroma [7], para-articular chondroma [8,9], giant extrasynovial osteochondroma [10], Hoffa's disease [11] and giant intra-articular osteochondroma [12].

But in our case this lesion involve whole of patella that patella cannot be distinguished and at histological examination the mass was characterized by trabecular bone tissue surrounded by hyaline cartilage. The pathogenesis and classification of this lesion are still controversial. Rizzello et al. [6] reported that this tumor seems to originate from a cartilaginous metaplasia of the articular and para-articular connective tissue. Rodriguez- Peralto et al., [7] emphasize a possible metaplastic origin of the tumor, due to a

traumatic event of Hoffa's fat pad. Other authors [10, 13] reported a relation between this type of osteochondroma of the knee and a chronic impingement of the infrapatellar fat pad; they conclude that this lesion is the end-stage of Hoffa's disease. But in our case there was no history of trauma or symptomatic history of infrapatellar fat pad. Usually after fusion of epiphysis chances of osteosarcoma is more but in this case at the age of 65yrs no signs of malignancy were seen.

Conclusion

An integrated clinical-pathologic diagnosis helps to clarify the nature of extra skeletal cartilaginous tumors that can arise at unusual anatomic site. Complete local surgical excision is the management of choice with proper follow up for reoccurrence.

Clinical Message

Unusual site of any tumor should be discussed clinically, radiological and pathologically before deciding treatment.

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