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A rare presentation of osteochondroma presenting as a concurrent sessile and pedunculated mass at proximal humerus managed with 2 stage surgery: A case report

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Abstract

We report a case of 10 year boy presented to OPD 9 years back, with complains of pain over anteromedial aspect of left arm, difficulty in moving shoulder, tingling and weakness in forearm and hand since 1 month. Xray of the left shoulder revealed a sessile and pedunculated mass over anteromedial and posteromedial aspect of left proximal humerus respectively. Skeletal survey was done to rule out multiple exostosis. Anteromedial sessile mass was removed with decompression of median nerve at that time, which was the cause of signs and symptoms while the posteromedial pedunculated mass was left as it was asymptomatic. Patient came again after 9 years due to discomfort by the pedunculated mass which then grew and became symptomatic. It was excised in the second stage. It was a rare presentation of sessile and pedunculated mass at the same site along with median nerve compression^[1] which otherwise is a case of solitary osteochondroma.

Keywords: Osteochondroma, Solitary, Pedunculated, simultaneous, humerus, median nerve compression, concurrent

1. Introduction

Osteochondroma usually presents as either solitary or as multiple exostosis. The tumour usually presents as a sessile or pedunculated mass, the latter is found more common, but are rarely seen together. Most patients developing osteochondroma have complains as pain and difficulty moving the affected joint. Nerve compression leading to obvious symptoms is very rarely a picture^[2]. We hereby present a case of solitary osteochondroma with concurrent sessile and pedunculated lesion at the same site with median nerve compression treated in 2 stages, which has not been reported before.

1.1 Case Presentation

A 10 year by presented to our OPD 9 years back with the complains of pain in left shoulder and arm, pain while moving shoulder, weakness and tingling in forearm and hand since 1 month.

On examination, the boy well-built and nourished with normal vitals, general and systemic examination. Local examination revealed a solitary lesion of approximately 5×3 cms over anteromedial aspect of proximal humerus, Deep tenderness, mass not mobile and not adhered to overlying muscles. Clinically it was diagnosed as osteochondroma with median nerve compression

X-ray (fig- 1) of left shoulder revealed a juxtacortical sessile mass over anteromedial aspect and posteromedial pedunculated mass, giving the most likely diagnosis of osteochondroma^[5, 6]. However patient had no complaint due to posteromedial mass.

After proper counselling of relatives and taking detailed consent explaining the risks of surgery especially fracture and recurrence, patient was taken to surgery. The anteromedial mass was excised along with the surrounding periosteum to prevent recurrence and care was taken to excise in toto along with the cartilaginous cap^[3]. Median nerve was found to be compressed by the mass, was isolated, decompressed and secured. The tissue was sent for histopathology which confirmed osteochondroma.

The patient did well after the surgery and all his symptoms related to the mass and the median nerve compression were alleviated and became completely symptomless in 2 months after surgery.

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The Patient again followed up in May 2015 this year with complains of mass over posterolateral aspect of the same shoulder and occasional pain. (Fig-2). Xray of the shoulder showed pedunculated mass which has grown considerably over the span of 9 years. (Fig 3.1, 3.2) However, to know the accurate position of mass, a CT scan was done which demonstrated the origin of mass to be on poeteromedial aspect which had grown posteriorly and then laterally to become prominent on posterolateral aspect of arm. (Fig 4)

The same deltopectoral approach (Fig 5) was used this time also and the mass was excised completely ^[4] (fig-6) histopathology had confirmed osteochondroma. (Fig-7). Patient did well post operatively and was relieved completely of the symptoms.



Fig 1



Fig 3.1



Fig 3.2



Fig 2



Fig 4



Fig 5



Fig 6



Fig 7

HISTOPATHOLOGY REPORT	
CLINICAL HISTORY	MASS ON LEFT UPPER ARM, GRADUALLY INCREASES SWELLING.
SPECIMEN	LEFT HUMERUS LESION EXCISION.
GROSS	SINGLE LINEAR BONY PIECE MEASURING 7.5X2X1CM, ONE END IS COVERED WITH CARTILAGENOUS CAP, SAMPLED IN 2 BLOCKS.
MICROSCOPIC	-
DIAGNOSIS	LEFT HUMERUS LESION; EXCISION : OSTEOCHONDROMA. NO EVIDENCE OF MALIGNANCY.

Fig 8

2. Discussion

Management of a case presenting with concurrent sessile as well as pedunculated mass at the same level i.e proximal humerus with sessile anteromedially and the other originating posteromedial and then growing posterolateral along with median nerve compression remains a challenge due to rare and unusual presentation. At the first stage, when sessile was

removed due to its complications, the pedunculated mass was not excised considering the fact that aggressive excision will weaken the bone due to large cortical defect causing fracture. Also considering the fact that osteochondroma are benign lesions and that the pedunculated mass was asymptomatic, such aggressive radical approach was not opted for. The Pedunculated mass was removed 9 years later when that had

grown to become symptomatic. The post op xray (fig-8) shows how much bone was excised and how it would have weakened the bone and probably fractured had both masses were excised at the same stage. So It is advised to carefully plan the surgery in such cases were two masses are located very close to each other.

3. Conclusion

Whenever we face a situation of concurrent presentation of two tumour masses at the same or nearby site, care should be taken by clinicians that the remaining bone doesn't get weak enough to fracture it. If a mass is left in situ, it should be an asymptomatic benign mass so that there no major risk involved. Careful clinical examination, pre and post operatively is mandatory to see the outcome when nerve compression is suspected. Though Xray is diagnostic to diagnose osteochondroma, CT Scan should be done to know the exact dimensions and location of the tumour.

4. References

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