



THE SOLITARY OSTEOCHONDROMA OF 1ST METATARSAL AND CUNEIFORM IN FOOT -RARE CASE SERIES.

Orthopaedics

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ABSTRACT

Introduction: Solitary osteochondromas are very rare in foot bones. Presently, few cases of foot bone osteochondroma are reported in literature. In growing bones few cases of osteochondroma are reported in adolescent bones. Talus, metatarsal and cuneiform are amongst these foot bones. We are reporting a case series of five patients of osteochondroma of foot bones for example, Metatarsals and Cuneiform. Because these cases are rare, we are presenting a short case series of five cases. In Which only metatarsal osteochondroma (2 cases), metatarsal with cuneiform osteochondroma (2 cases) and only cuneiform osteochondroma (1 case). Our case no.1 was 24year old female , Mrs Subhangi Shinde presented with bony hard swelling on dorsomedial side of Rt foot near head of 1st Metatarsal. (Clinical photo no.1 & 2). She has history of small swelling on medial side of forefoot from the age of 13 years (Adolescent age). That increased in size to 2/2 inches to achieve today's size. It's was slightly painful particularly on walking. (Clinical photos). Radiologically, Solitary bony nodule on anteromedial side of first metatarsal on Rt side (preop xrays showing the findings) . It's growing from head and neck of first metatarsal. Nodule/tumour was well demarcated and single. We have radiological examination of lower limbs especially around knees, to rule out other possible osteochondroma. It was decided to Excise it.Postop xrays taken (photos). Case No. 2: Master Ashish Patil age 14 years. Ct scan picture of osteochondroma of the cuneiform and first metatarsal showing sclerosis around. (CT SCAN PHOTO CASE NO.2) Case No. 3: Master Dilip Mali age 13 years. CT scan picture showing osteochondroma in medial cuneiform extending laterally and plantarward. (CT SCAN PHOTO CASE NO.3) Case No. 4: Miss Priyanka Patil 14 years. X-ray of feet showing osteochondroma on lateral area of the 1st metatarsal with enlargement of the MTF joint. (X-RAY PHOTO CASE No.4) Case No. 5: Miss Pallavi Deore 13 years. Coronal T1- weighted MRI reveal the cortex- medulla continuation between osteochondromas and parental bones (1st metatarsal and medial cuneiform). (MRI PHOTO CASE NO.5) **Conclusion:** Solitary Osteochondroma of foot bone is rare. Only few cases of Foot Bones osteochondromas are reported. These osteochondromas start at adolescent age may be neglected for few years. These may present at any age, just we had seen it at 24 years of age and Four patients at the Age of 13 years(2 cases) and 14 years(2 cases).

KEYWORDS

Osteochondroma, Bony Hard, Metatarsal, Excision.

INTRODUCTION

Osteochondroma are common benign tumours of bones. Multiple osteochondromas are common in different bones and even in one bone. Osteochondroma affect metaphyseal area of bone. Metatarsal head, neck and cuneiform of foot bones is a rare site. Osteochondroma of foot bone are rare and sporadic cases are reported of affection of foot bone. Metatarsal, talus, calcaneum and cuneiform. (1,2,3,4,5). We have not seen these cases for years together but we saw five cases in last three years. Our study period is three years.

We report rare case no.1 of osteochondromas of first metatarsal and foot bones started at age 13 year and patient consulted many orthopedic surgeon. One female Patient case no 1. came to us at age of 24 yrs and other four came at the age of 13(2 cases) and 14 years of age(2 cases). Early excision is better for daily activity of adolescent. It can be excised even at 13 yrs of age and if care is taken to remove the cartilaginous cap, then no recurrences are seen. Patient were happy with the cosmetic results.

CASE REPORT

All five Patients seen in OPD. Swelling present at anteromedial side of foot. This was more painful on walking. Normal footwear were not fitting on affected side. Nodule at metaphyseal area of anteromedial aspect of forefoot was there. It's bony hard and not separable from bone. Foot had minor skin sclerosis on the swelling. No other bony similar swelling is seen. Their ability to stand tip toe was limited.

Past history of swelling was small from 13yrs of age grown to the present size in case no. 1. Other cases came when they saw the swelling at 13 or 14 years of age.

It's decided to excise the nodule in all five cases.

Surgical and Anesthesia fitness taken.

Under spinal anesthesia, osteochondroma nodule Excised in all the five cases, scalloping is done at excision site so that no cartilaginous cell remains there. Cartilaginous cap is also removed over the nodule is also excised.

Post-op x.ray taken (photo of first case)

Specimen sent for histological examination. Report is attached (report of case no.1), it confirmed the diagnosis of osteochondroma. Such a diagnosis is also confirmed in all other four cases.

All patients were kept admitted for 8 days. After stitches are removed, patient was advised weight bearing.

Follow up after 1 month .. Every thing was alright. All had uneventful recovery and all have no complain what so ever, at last follow up six months after operation. Patients were happy cosmetically. No pain on walking or sport activity. Now can wear normal foot wears. There was some broadening of medial side of neck of 1st metatarsal neck.

DISCUSSION

OSTEOCHONDROMA OF FOOT BONES are rare. Usually we find multiple osteochondromas on different bones especially around knee joint. Single Exostosis is seldom found on foot bones. In metatarsal, we find Exostosis occasionally. Common foot bone affected are 1st metatarsal, talus, cuneiform and calcaneum. (1, 2,3,4,5,7.) Though osteochondroma or Exostosis develop in childhood but they are usually diagnosed in adolescent or adult life (6,7,15) (just like our case adult age of 24yrs) . Most delayed diagnosis is marked in hand (8) Lesion had pain on activity, sports or walking. They are subcutaneous in foot or at many places. The lesions can disturb the growth of bones, the

bone can become short changing the alignment. Scalloping of nearby bones especially metatarsal can be seen. Osteochondroma are seen in adults also (7). The lesion is osteo cortical and cancellous enlargement in long axis of bone. Growth occurs till bone maturity. The lesion has cartilage cap if this is not removed in growing period, then recurrence will occur. If recurrence occur we should evaluate the patient for accurate diagnosis(9) by CT scan and MRI. CT SCAN are done in three cases and MRI is done in fifth case. But they are not required unless malignancy is suspected. There are two type of Exostosis: Pedunculated and sessile. It's easy to remove pedunculated than sessile. There are references that few cases of osteochondroma located in foot bones in adolescent(5).

CONCLUSION

In this study we report a case with osteochondroma of 1st metatarsal and medial cuneiform seen in adolescent but operated in adult age as patient(Case No.1) was not ready that time and presented to us at the age of 24. In other four cases, we removed osteochondromas of the patients when they presented at age of 13 and 14 years.

We have given them cosmetically accepted result. Surgical excision with cartilaginous cap and scalloping at the site of lesion is the treatment.

RESULTS

We have good result in all five cases. We compare series with the literature both having same result. We had no recurrences in our series.

Conflict of Interest – NIL

Source of Support: Nil

Certificate from Board Of Research Study- Obtained.

Certificate from Institutional Ethical Committee- Obtained

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Consent: The authors confirm that informed consent was obtained from the patients for publication of this case series.

Clinical photo of patient with node at first metatarsal bone



CLINICAL PHOTO CASE NO.1



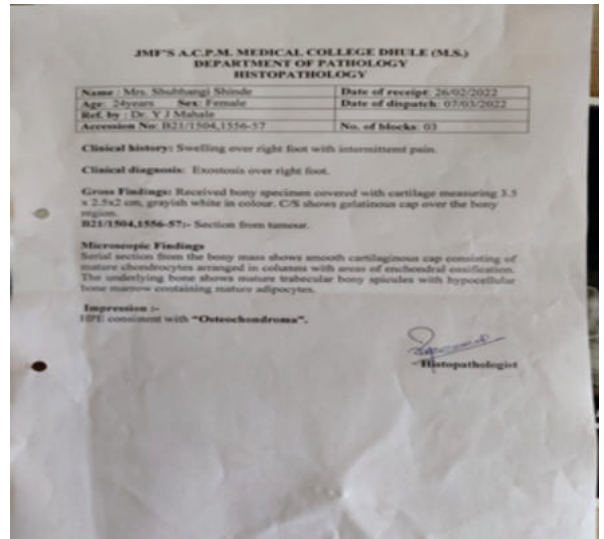
CLINICAL PHOTO CASE NO.1



PREOPXRAY CASE NO.1



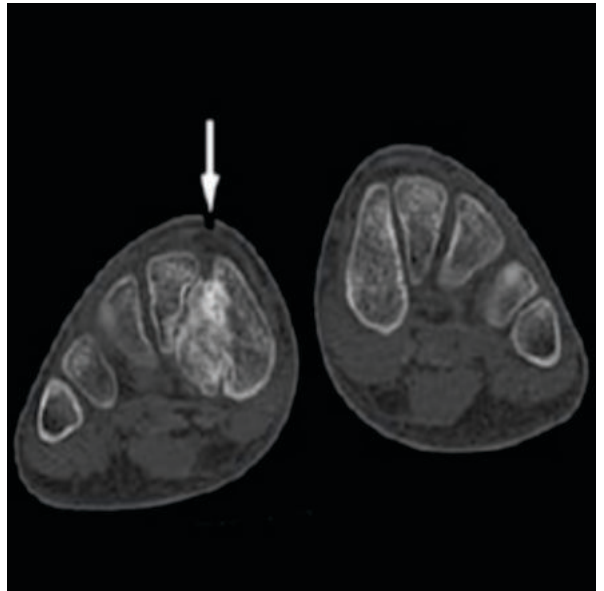
PREOPXRAY CASE NO. 1



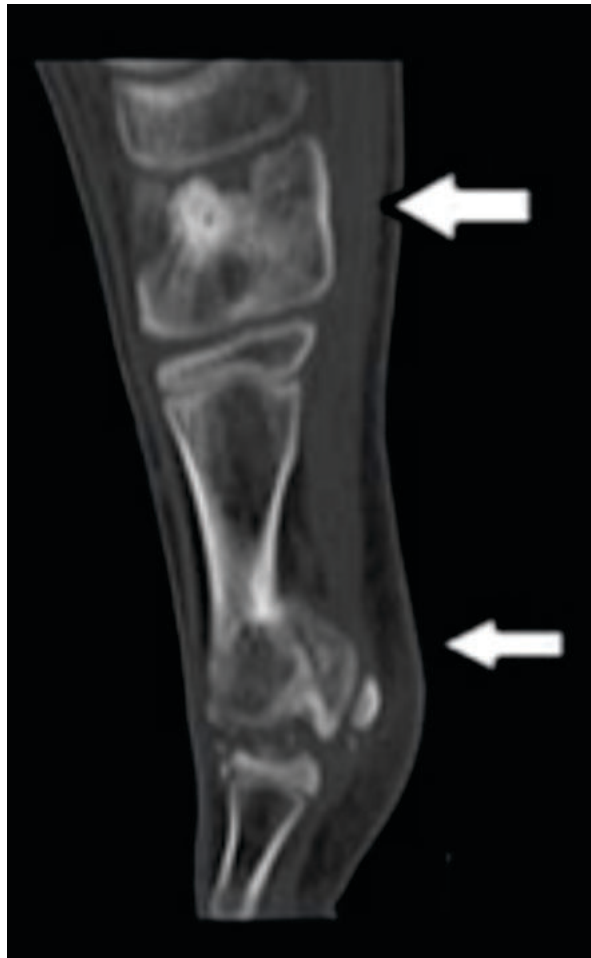
HISTOPATHOLOGY REPORT CASE NO.1



POSTOPXRAY CASE NO.1



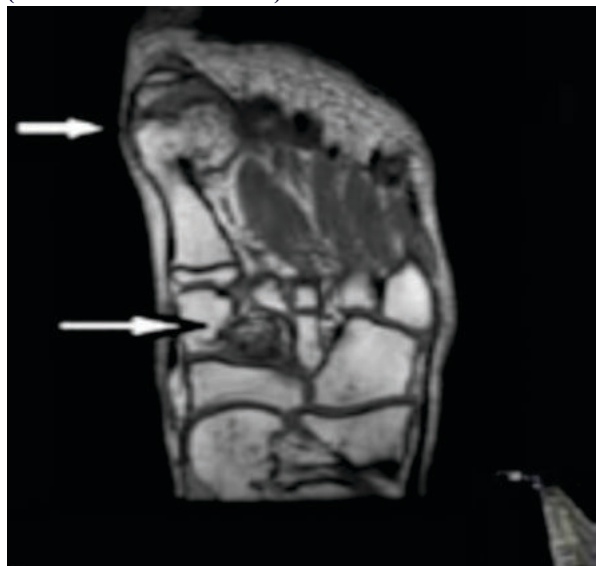
CT SCAN PHOTO CASE NO.3
(In the Medial cuneiform bone)



CT SCAN PHOTO CASE NO.2
(First metatarsal and cuneiform bone)



(X-RAY PHOTO CASE NO. 4)



(MRI PHOTO CASE NO.5)

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