

Chondromyxoid Fibroma of Calcaneum: A Rare Case in Indian Population

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ABSTRACT

Chondromyxoid fibroma is a cartilaginous tumor of metaphysis of long bones. Its occurrence in calcaneum is very rare. Here we report a case of 16 year old female, presented with swelling and pain in left foot. On X ray an eccentric radiolucent lesion was seen. FNAC suggested cartilaginous tumor. Lesion was curetted and filled with bone graft. On histology chondromyxoid fibroma diagnosis was confirmed.

KEYWORDS: Cartilaginous, Eccentric, FNAC, Radiolucent.

INTRODUCTION

Chondromyxoid fibroma is a rare lesion of cartilaginous origin, representing less than 0.5% of all bone tumors according to the Mayo Clinic series¹. Its occurrence in calcaneum is very rare² and only in five studies²⁻⁶ of calcaneum involvement have been reported in literature. We report here a case of chondromyxoid fibroma of calcaneum.

CASE REPORT

A 16 year old female presented in OPD with chief complaint of swelling in left foot with heel pain while walking. Swelling onset was gradual. The patient denied history of trauma, fever or any previous surgery. On examination a firm swelling on lateral aspect of foot with distinct margin and normal overlying skin [Fig 1]. It was tender and 3x4cm in size. Range of motion was normal at overlying ankle and subtalar joint.

Lateral view of ankle X ray showed eccentric radiolucent lesion with sclerotic margin [Fig 2].

CT scan showed intact overlying cortex. FNAC suggested chondromyxoid fibroma. Lesion was curetted through lateral approach and filled with bone graft. Histological examination confirmed chondromyxoid fibroma.

DISCUSSION

Chondromyxoid fibroma is a benign, although potentially aggressive tumor, with a cartilage-like matrix, accounting for approximately 1% of all bone tumors. It usually affects the metaphyseal region of long bones of patients in their first or second decade of life⁷. The tumor is more common in males. The tumor is

benign and there have been no reports of metastases⁸.

Chondromyxoid fibroma is quite puzzling in diagnosis due to similar pathologic entity with more aggressive tumors⁸. Histology is key for diagnosis. Treatment is curettage with bone grafting.

We did CT scan of heel to rule out unicameral bone cyst or giant cell tumor. FNAC suggested possibility of Chondromyxoid fibroma and confirmed on histopathology. A quick and accurate diagnosis of chondromyxoid fibroma can prevent unnecessary treatment that could be harmful to the patient.

To best of our knowledge we did not find any case of CMF calcaneum in Indian population. So this tumor should be considered in the differential diagnosis in patients with ankle and heel pain.

REFERENCES

1. Adams M, Spencer G, Totterman S et al: Case report 776. *Skeletal Radiol* 1993; 22:358.
2. Jamshidi K, Mazhar FN, Yahyazadeh H: Chondromyxoid fibroma of calcaneum. *Foot Ankle Surg.* 2013 Mar; 19(1):48-52. doi: 10.1016/j.fas.2012.10.003. Epub 2012 Nov 7.
3. Roberts EJ, Meier MJ, Hild G, Masadeh S, Hardy M, Bakotic BW. Chondromyxoid fibroma of the calcaneus: two case reports and literature review. *J Foot Ankle Surg.* 2013 Sep-Oct; 52(5):643-9. doi: 10.1053/j.jfas.2013.02.014. Epub 2013 Apr 13.
4. Gacyk W, Pikiel L, Bilczuk B, Wiśniewska W. Chondromyxoid fibroma of the calcaneus *Chir Narzadow Ruchu Ortop Pol.* 1971; 36(1):127-32. [Article in Polish]

5. Riachi E. Chondromyxoid fibroma of the calcaneus. *Rev Med Moyen Orient*. 1962 Sep-Oct; 19: 615-7.
6. Giambelli G, Mincione A. Chondromyxoid Fibroma of the Calcaneus. *Minerva Ortop*. 1964 Jan- Feb; 15: 20-3.
7. Dürr H R, Lienemann A, Nerlich A, Stumpfenhausen

- B, Refior HJ: Chondromyxoid fibroma of bone. *Arch Orthop Trauma Surg*. 2000; 120(1-2):42-7.
8. Lersundi A, Mankin HJ, Mourikis A, Hornicek FJ: Chondromyxoid fibroma: a rarely encountered and puzzling tumor. *Clin Orthop Relat Res*. 2005 Oct; 439:171-5.



Fig 1: Firm swelling on lateral aspect of foot with distinct margin.



Fig 2: Eccentric radiolucent lesion.

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