

# Adamantinoma Of Tibia With Skeletal Metastasis: An Unusual Presentation

S Kanakaraddi, T Ravinath, G Nagaraj

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## Abstract

Adamantinoma is a rare tumour of long bones whose pathogenesis is unknown. It occurs most commonly in the tibia. Although locally aggressive, recurrences are common after resection with metastasis in 10-20% of cases, most commonly to the lungs and rarely to the lymphnodes. In our case a secondary was detected 4 years after resection of primary tumor.

## INTRODUCTION

- Adamantinoma is a rare tumour of long bones typically involving midshaft of tibia.
- It's pathogenesis is unknown.
- It is called so because of resemblance to ameloblastoma of jaw.
- Most commonly occurs between 10-50 years with slight male preponderance.
- Initially the tumours are eccentric but eventually involve the whole depth of the shaft.<sup>1</sup>
- Adamantinoma is locally aggressive will readily recur if incompletely removed.<sup>2</sup>

## CASE REPORT

- A 17 year old male patient presented with history of pain and swelling over the lower part of left leg since 8 months.
- Clinical examination showed an irregular swelling with lobulated surface and was soft to hard in consistency. The skin over the swelling was stretched and shiny. Movements of ankle joint were normal.
- Plain radiographs showed an expansible, osteolytic lesion involving lower half of tibia with a characteristic 'soap bubble appearance'.
- With 2 differential diagnoses in mind

(osteoclastoma, adamantinoma) biopsy was done. Histopathological examination showed features of adamantinoma.

- Since not enough of normal tissue was available at the lower end of tibia for wide resection and reconstruction below knee amputation was done.
- Patient came back 4 years later with pain and swelling over lower part of right thigh but had no complaints regarding the previously affected limb.
- Plane radiograph of right femur showed an osteolytic lesion in the metaphyseal region of lower end of right femur.
- This lesion was also biopsied and sent for histopathological examination, which showed features of adamantinoma.
- Chest X-ray and CT scan were taken to look for any pulmonary metastasis, but there were none.
- Since this lesion also cannot be taken for wide resection and reconstruction because of not enough normal bone available, Other modalities of limb salvage surgery are being considered to avoid amputation.

## DISCUSSION

- Adamantinoma is a locally aggressive tumour and notorious for recurrences following curettage.<sup>2</sup>
- Metastasis occurs in around 10% to 20% of

adamantinoma cases. Most common site of metastasis is lungs and can also occur to the lymph nodes.<sup>2</sup>

- Skeletal metastasis is very rare.
- In this case patient developed a secondary 4 years after resection of primary and was completely symptomless during these 4 years.
- Patient did not have any pulmonary metastasis and there was no recurrence in the previously affected limb.

- This case was unusual in that there was no local recurrence at the primary site but there was a simultaneous secondary in the contralateral femur and there was no pulmonary metastasis also.

### **References**

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**Author Information**

**Sandeep Kanakaraddi, BBS**

Post Graduate, Department Of Orthopaedics, J.J.M. Medical College

**T. M. Ravinath, M.S.**

Professor, Department Of Orthopaedics, J.J.M. Medical College

**G. Nagaraj, M.S., D.Ortho.**

Professor and Head, Department Of Orthopaedics, J.J.M. Medical College