ORIGINAL RESEARCH PAPER

Orthopaedics

CHONDOMYXOID FIBROMA OF PROXIMAL TIBIA :A CASE REPORT.

KEY WORDS: chondromyxoid Fibroma, Benign Metaphyseal Lesion.

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ABSTRACT

Chondromyxiod fibroma is a rare benign and potentially aggressive cartilage forming bonetumour and accounts for less than 1% of primary bone neoplasm. It usually affects 1st or 2nd decade of life.It occurs in males more often than females. Because of rarity of Chondromyxoid fibroma and varied morphology, it can be confused with malignant tumor and adds difficulty in diagnosis, here we report a case of chondromyxoid fibroma in a 27 year old male involving proximal end of tibia.

INTRODUCTION

Chondromyxoid fibroma is a rare benign bone tumour accounting for less than 1 % of primary bone neoplasm [1] mainly occurs in male, between 10 to 30 years of age. The most common site is metaphyseal region of long bone[2].It manifests as a local swelling with persistent pain. Histopathologically the tumour is made up of chondroid,myxoid andfibroid material [1]. We are presenting a case of Chondromyxoid fibroma in a 27 year old male involving proximal end of tibia.

CASE REPORT

A 27 year old male patient presentedwith one year history of pain and local swelling present over medial aspect of proximal tibia. There was no history of previous trauma or any other operative procedures .Physical examinationrevealed mild tenderness over the swelling. Laboratory investigation was normal. The X ray showed eccentric,radiolucent, lobulated lesion with a sclerotic rim situated over proximal end of tibia [Figure 1]. CT image revealed an expansile eccentric osteolytic lesion in proximal aspect of tibia [Figure 2]. From the clinical and radiological findings the diagnosis of chondromyxoid fibroma was considered[1]. Patient underwent intralessionalexcision and curettage. During surgery, the lesion is filled with myxoid soft tissue bulging into adjacent tissue [3] [Figure 3].Histopathological examination revealed abundant intercellular matrix and chondroid matrix with no signs of calcification [1] [Figure 4].Histopathological examination confirmed chondromyxoid fibroma.

DISCUSSION

Chondromyxoid fibroma is a benign but aggressive tumour occurring primarily in the 1st and 2nd decade of life [4]. Common site of tumor is the metaphysis adjacent to the epiphyseal growth plate [4]. Histologically chondromyxoid fibroma is a benign tumourcharacterised by lobule of spindle shaped cell and abundant myxoid material[1] [Figure 4]. It may be misdiagnosed as aneurysmal bone cyst and non-ossifying fibroma because of some similarities and it is important to distinguish by establishing the clinical, radiological and pathological feature of chondromyxoid fibroma[2] .Clinically patients present with pain, swelling which is progressive in nature and duration may be few months to year.Radiologically the lesion is osteolytic lesion with cortical expansion and a sclerotic rim [2] [Figure 1]. CT scan shows expansile eccentric lytic lesion which reveals chondromyxoid fibroma[2] [Figure 2].Diagnosis of chondromyxoid fibroma depends upon the histopathological examination. The typical histological features of chondromyxoid fibroma are lobular pattern filled with spindle shape cells in a myxoid or chondroid background [Figure 4].Dahlinstressed that increased number of cell nuclei at periphery of chondroid lobules with plump hyperchromatic nuclei are characteristic feature of chondromyxoid fibroma [2]. Sometimes multinucleated polymorphic cartilage cells may lead to misdiagnosis of chondrosarcoma[2].Radiological differential diagnosis includes aneurysmal bone cyst / Non ossifying fibroma[2].Treatment option of chondromyxoid fibroma include accurate curettage with or without bone grafting or polymethylmethacrelate placement [2].chondromyxoid fibroma is a benign tumour but rate of recurrence is high but wide excision reduce the rate of recurrence [4].We therefore decided to perform curettage [4] and hydrogen peroxide wash because hydrogen peroxide has some exothermic and necrotizing effect so it reduces risk of recurrence[4].Post operatively patient is immobilized with below knee plaster for three weeks and there is no recurrence after one year. Therefore wide exicision is appropriate treatment for locally aggressive benign neoplasm.

CONCLUSION

Chondromyxoid fibroma is benign aggressive tumour clinically and radiologically mimic like other benign and malignant tumour ,histopathological examinationis important for diagnosis and appropriate treatment. Wide exicision or accurate excision is the choice for treatment for low rate of recurrence.

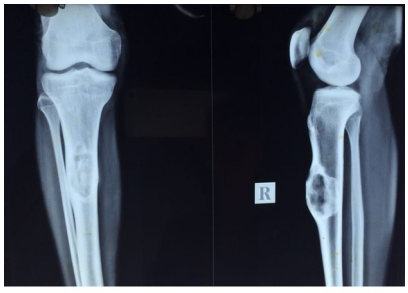

Figure 1:X ray showed eccentric, radiolucent, lobulated lesion with a sclerotic rim situated over proximal end of tibia

Figure 2: CT image shows an expansile eccentric osteolytic lesion in proximal aspect of tibia

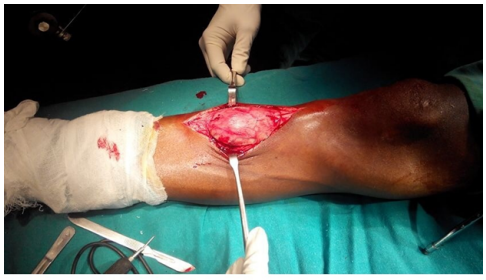

Figure 3: Intra operative picture showing the lesion on the proximal aspect of tibia

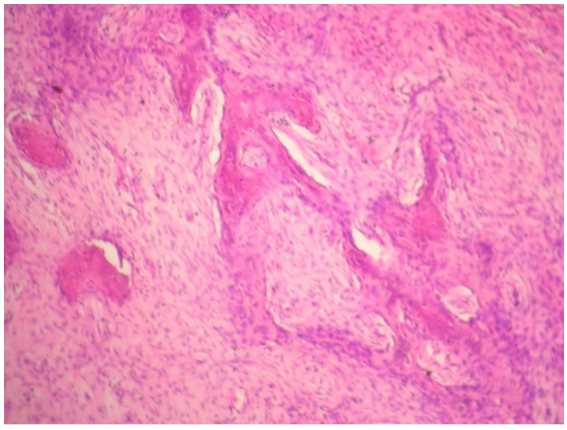

Figure 4:Histological picture showing lobule of spindle shaped cell and abundant myxoid material

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