

Case Report

A Case of Aneurismal Bone Cyst in Lower End of Tibia

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Abstract: Aneurysmal bone cyst involving the lower end of tibia in middle age male is a rare entity. A 37 years male patient came to the outpatient department with a complaint of pain in the lower part of the right leg since two years aggravated since one month. The diagnosis of aneurysmal bone cyst/ giant cell tumour of the distal tibia have been made. Patient was treated with curettage and bone grafting using autologous cancellous bone from iliac crest, ipsilateral shaft of fibula and synthetic graft bone, curettage material was sent for histopathological examination and it confirms the diagnosis of aneurysmal bone cyst. Postoperatively the wound healed well by fourteen days and patient got relieved from the pain. Radiologically cavity was obliterated by new bony trabeculae at six months. We conclude that aneurysmal bone cyst is rare at the lower end of tibia and in middle aged males. Diagnosis is by histopathological examination of the curettage material. In middle aged patients to do limb salvage curettage and bone grafting is the choice of treatment.

Keywords: Aneurysmal bone cyst, tibia, histopathology, curettage, bone grafting

INTRODUCTION

Aneurysmal bone cyst involving the lower end of tibia in middle age male is a rare entity. Here we are presenting 37 year male who had the similar diagnosis and its management.

CASE REPORT

A 37 years male patient came to the outpatient department with a complaint of pain in the lower part of the right leg since two years aggravated since one month. No history of swelling, sinus, fever, loss of appetite and weight. Examination of the right leg we noticed there was diffusing tenderness over the lower end of tibia. X-ray examination of the right leg with ankle joint show well defined osteolytic lesion with sclerotic margins with multiple fine septae in the lesion at the lower end of tibia involving metaphysis and epiphysis (Fig. 1). The diagnosis of aneurysmal bone cyst/ giant cell tumour of the distal tibia have been made. Patient was treated with curettage and bone grafting using autologous cancellous bone from iliac crest, ipsilateral shaft of fibula and synthetic graft bone (Fig. 2, 3, 4), curettage material was sent for histopathological examination and it confirms the diagnosis of aneurysmal bone cyst. Postoperatively the wound healed well by fourteen days and patient got relieved from the pain (Fig. 5). Radiologically cavity was obliterated by new bony trabeculae at six months.



Fig. 1: Osteolytic lesion involving Meta and epiphysis of distal tibia



Fig. 2: Intra operative picture showing window in the anterior wall



Fig. 3: Image intensifier picture showing extent of lesion and curettage



Fig 4: Lytic lesion filled with fibular graft and synthetic bone



Fig. 5: Post-operative X-ray

DISCUSSION

Aneurysmal bone cyst is a benign tumour like lesion; its incidence is 1-6%. Jaffe and Lichtenstein first described aneurysmal bone cyst as its own entity in 1942, when they noted a peculiar blood-containing cyst of large size. Aneurysmal bone cyst is seen most commonly in females with a male to female ratio of 1:1.3, and in second decade. Most common site is the proximal part of the humerus, femur and tibia. In our case it's in distal tibia. The usual presentation to the clinician is by vague pain disturbing the activities of daily living, swelling. Examination reveals diffuse tenderness at the involved bone, and sometimes with swelling, pathological fracture. X-ray examination show well defined osteolytic lesion with well-defined sclerotic margins and multiple fine septae within the cavity [1]. The final diagnosis is made by histopathological examination of lesion. The treatment options are curettage, curettage with bone grafting, curettage with bone cementing, enbloc resection or wide excision, selective arterial embolization, curettage with locally applied adjuvants such as liquid nitrogen or phenol. In our case we did curettage with synthetic graft bone and autologous bone grafting [2]. The overall cure rate is 90-95% [3].

CONCLUSION

Aneurysmal bone cyst is rare at the lower end of tibia and in middle aged males. Diagnosis is by histopathological examination of the curettage material. In middle aged patients to do limb salvage curettage and bone grafting is the choice of treatment.

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