

The Unusual Pathological Femur Of Fracture Secondary To Fibrous Dysplasia: A Case Report

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INTRODUCTION:

Fibrous dysplasia is not uncommon cause of pathological fracture in paediatric age group and young adolescence. It is an intrinsic defect of endochondral bone maturation that results in incomplete ossification pattern characterised by benign fibrous stroma stippled with bony island of metaplastic bone resulting in weakening of the bone, hence a pathological fracture. Where monostotic occurring in 85% of the cases, pathological fracture remains common presenting complaint other than skeletal deformities and bony pain. Fracture fixation remains a challenge to orthopaedic surgeon in treating this type of disease.

MATERIALS & METHODS:

Here we reported 11 years old Malay boy who was perfectly well until he presented with left thigh pain and unable to weight bear following a minor trauma falling from a bicycle. Upon his presentation to emergency department, his thigh is deformed, painful and the neurovascular was intact. Otherwise there is no lymphadenopathy, no bony pain elsewhere. Plain radiograph showed transverse midshaft left femur fracture with multiple lytic lesions. MRI of left femur is performed showing involvement of neck to distal part of the left femur, with stress fracture over neck of femur. Diagnosis of fibrous dysplasia is confirmed with bone biopsy. He underwent bone curettage, calcium sulphate injection and fixation of fracture with TENS and paediatric hip plate. During manipulation for insertion of TENS, subtrochanteric femur is iatrogenically fractured. He recovers well post operatively and was discharged well with strict non weight bearing ambulation.

RESULTS:

At his first clinic visit at 6 weeks post operatively, he is well and the fracture is healing.

Figure 1: Preoperative radiograph

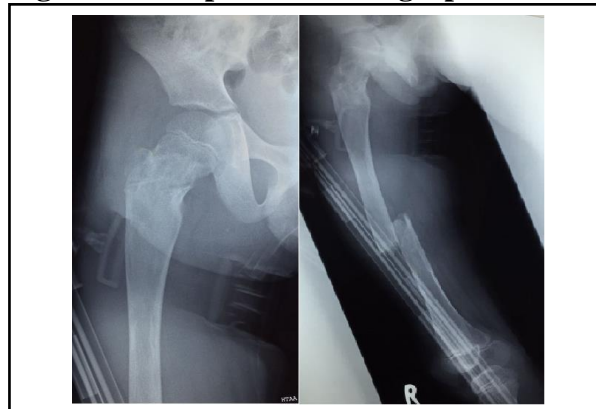


Figure 2: 6 weeks post operative radiograph



DISCUSSIONS:

Line of management in treating the fracture is the same with other fracture type apart from the use of calcium sulphate injection for added structural stability in the weakened bone until new bone formation occurs. MRI is good modality to determine extension of the abnormal bone to plan for operation. Union is not an issue but the new bone that will replace the calcium sulphate usually is diseased also.

REFERENCES:

1. Adetyo et al, Journal of Plastic Surgery, 2015.
2. Benhamou et al, Journal of Bone and Mineral Research, 2016.