

Simultaneous Fracture Stabilization And Corrective Osteotomy In A Child With Osteogenesis Imperfecta

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INTRODUCTION:

Osteogenesis imperfecta (OI) is a group of genetic collagen disorder causes multiple or frequent bone fracture. This is a case report of a child who had malunion of proximal femur together with newly fracture midshaft of same bone treated with corrective osteotomy and placement of intramedullary rod.

CASE REPORT:

A 9 years old girl with underlying OI had sustained fracture midshaft left femur with malunion varus deformity. Patient had history of trauma previously which he had left proximal femur fracture treated conservatively with traction and hip spica.

On current admission she was put on skin traction. Pre operative radiograph showed proximal left femur malunion varus deformity about 30 degree with newly midshaft of femur fracture. Due to the femur deformity, patient was planned for corrective osteotomy with intramedullary nailing.

Intraoperatively, corrective osteotomy was done at the maximum point of antecurvature deformity. Intramedullary nail was inserted (Titanium Elastic Nail) from proximal to distal femur through the osteotomy site and fracture fragment. Due to very small diameter of intramedullary canal, only a single nail was inserted.

Post operatively, single leg hip spica was applied for her and weight bearing was restricted. Wheelchair ambulation was started at post operative day 3. She was discharged well from hospital.

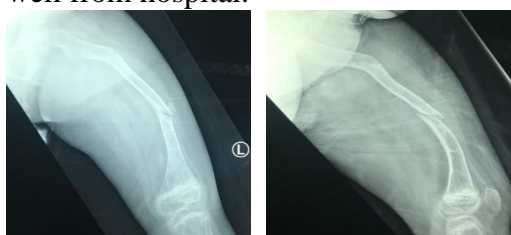


Figure 1: Pre operative radiograph showed antecurvature 30 degree with fracture.



Figure 2: Post operative radiograph showed correction of deformity.

DISCUSSIONS:

Indication for surgical intervention in OI is mainly in patient with recurrent fracture and deformity. It should be performed ideally for walking or standing child and the prognosis need to be consider. The used of flexible intramedullary nail (TENS) reported to be good in treating femur fracture. In this case, intramedullary fixation offered a correct alignment, thus reduce risk of refracture. In summary, treating fracture in OI is very complex and the case presented here is a good example of how corrective osteotomy and fracture stabilization can benefit the patient.

REFERENCES:

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