

Surgical Treatment Of Fibrous Dysplasia Of The Lower Limbs Using Ilizarov Compression-Distraction Device- A Review Of Treatment Outcomes

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INTRODUCTION:

Fibrous dysplasia is a pathological condition whereby normal medullary bone is replaced by structurally weak fibrous tissue. When involving the weight-bearing bones of the lower limbs, patients may present with pain, deformity, fracture or a combination of all. We present a review of surgical treatment using the Ilizarov Compression-Distraction device.

MATERIALS & METHODS:

A total of five patients were treated between 2015-2016. Two patients presented with pain, two with deformity- Shepherd's Crook deformity and one with a combined fracture-deformity. All patients were treated with the ICD method. No bone grafts were used.

RESULTS:

All patients were treated successfully following the application of the ICD device. The mean duration of Ilizarov fixation was about 20 weeks (12-28 weeks range). The longest duration of the ICD application was for the treatment of the Shepherd's crook deformity patient who presented with a fracture- 28 weeks. The patient with localized tibia pathology had the shortest period on the ICD- 12 weeks.



Figure 1: FD of tibia pre application of ICD device



Figure 2: The tibia 8 months later

DISCUSSIONS:

A variety of treatment options have been documented in literature- casting, intramedullary nails, plates and external fixation, each with variable success rates and complications. The aim of this review was to showcase the outcomes with the ICD device. The ICD device enabled single stage surgeries with good outcomes and minimal complications.

CONCLUSION:

The Ilizarov Compression-Distraction device is a feasible treatment option for Fibrous Dysplasia patients who require surgical intervention

REFERENCES:

1. Ippolito et al., Natural history and treatment of fibrous dysplasia of the bone: a multicenter clinicopathologic study promoted by the European Pediatric Orthopaedic Society
2. K Sakurakichi et al., Ilizarov technique for the correction of the Shepherd's crook deformity: a report of two cases.