

## Intricate Fibula Hemimelia with Fixed Equinovalgus : A Reconstructive Strategy

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### INTRODUCTION:

Fibula Hemimelia is defined as congenital deficiency where part or all the fibular bone is hypoplastic, dysplastic or aplastic associated with hypoplasia and dysplasia of the tibia and hypoplasia, dysplasia or aplasia of parts of the foot.[1] It is a sporadic case with the incidence about 7.4-20 cases per million live birth and mostly is unilateral presentation.[2,3]

### REPORT:

Our patient, 8 years old, Malay, girl, presented with right short leg. Antenatal and post natal history is unremarkable. On physical examination, no sign of neurocutaneous or syndromic features and walked with right short limb gait. Her right lower limb is shorter about 7 cm with anteromedial bowing of leg and absent of lateral two rays with fixed equinovalgus of right ankle. Plain radiograph (Figure 1) showed that right tibia, ankle and foot deformities [3]. MRI (Figure 2) revealed a short remnant fibula with present of Fibula anlage.

We classified her deformities as Paley Type 3C with 15 cm predicted leg length discrepancy at maturity. In this literature, the correction either before or at the time of tibia lengthening using of Systemic Utilitarian Procedure for Extremity Reconstruction (SUPERankle) [1] which involved surgical lengthening of Achilles Tendon and peroneal tendons combined with opening wedge osteotomies of distal tibia and subtalar coalition to obtain stable plantigrade ankle. The reconstructive life plan will consist of:

**First Surgery:** At age 8 years old, SUPERankle procedure combined with lengthening of 8 cm.

**Second Surgery:** At age 12 years old, lengthening 7 cm of tibia, with or without opposite Tibia epiphysiodesis if required.

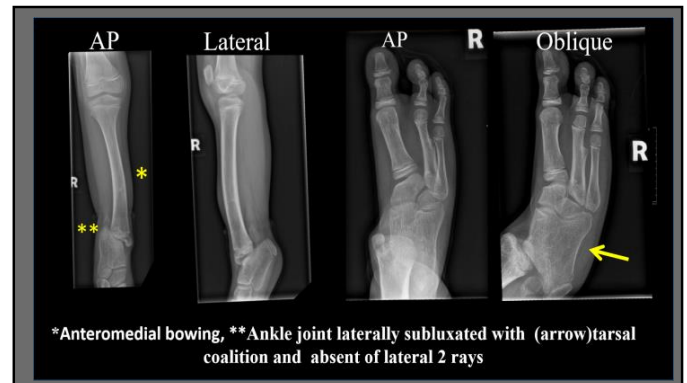


Figure 1

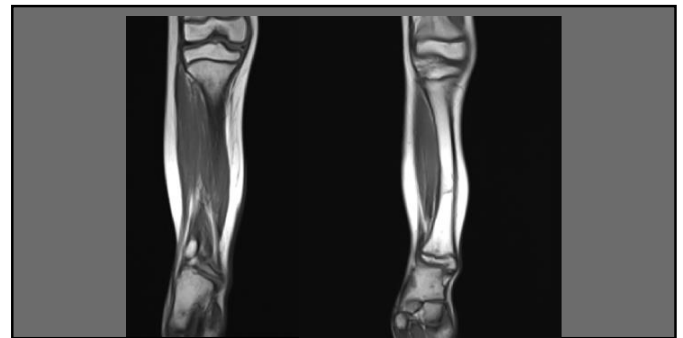


Figure 2

### CONCLUSION:

In an intricate case of Fibula Hemimelia which characterized by significant limb length discrepancy and associated deformities, the correct classification will guide us to determine plan of operation to address all the deformities besides effective patient's education throughout the treatment.

### REFERENCES:

1. Dror Paley Surgical reconstruction for Fibular Hemimelia J Child Orthop (2016) 10:557-583
2. Froster U.G et al Congenital defects of lower limb and associated malformations: A population based study/Am.J.Med.Genet 1993; 45:60-64
3. Hazem mossad et al Ankle reconstruction in type II Fibular Hemimelia Strategies Trauma Limb Reconstr 2012 Apr; 7(1):23-26