

# Fibular hemimelia treated with SUPER(Systematic Utilitarian Procedure for Extremity Reconstruction) ankle procedure and ilizarov lengthening

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## Introduction

Fibular hemimelia (FH) is a congenital deficiency of lower limb with hypoplastic, dysplastic or aplastic fibula.

The phenotype has a wide spectrum of pathology, ranging from mild to severe limb length discrepancy, ankle/foot deformities with or without subtalar coalition, midfoot coalitions and tibial defects.

FH has 5 main problems

1. limb length discrepancy (LLD)
2. foot and ankle deformities and deficiencies
3. tibial deformity ,genu valgum
4. knee instability.

SUPER ankle is a recent ankle reconstruction procedure developed by dror paley which deals with all these problems in a sequential manner to achieve a functional plantigrade feet.

# Case Report

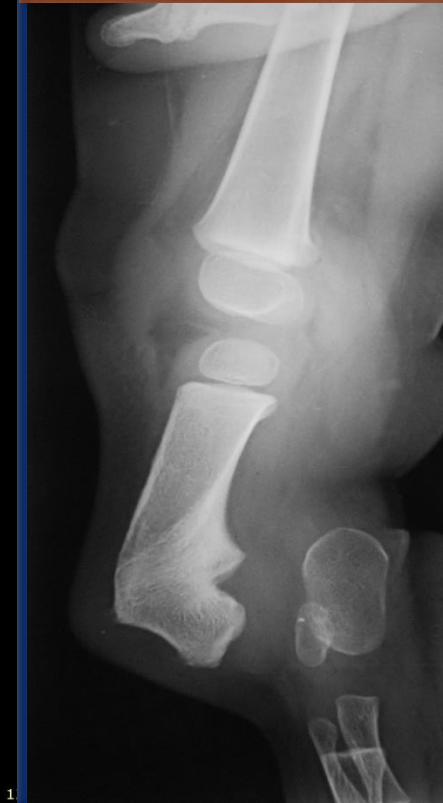
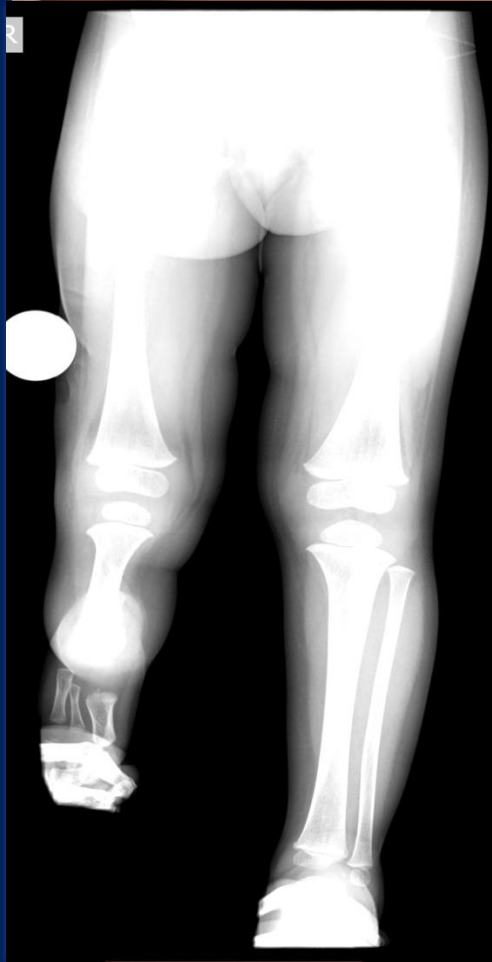
One and half year old girl

Presented with following deformities

- 1.Shortening of the leg segment LLD
- 2.Procurvatum deformity of the tibia
- 3.Equines contracture
- 4.Absent lateral rays
- 5.Absent fibula
- 6.Subtalar joint-normal

## Further evaluation

- Hip, Spine and Knee examination were WNL
- Mild instability in knee joint (Valgus )
- MRI of hip and Knee-normal
- Distal pulse-dorsalis pedis absent, posterior tibial present



# Diagnosis and Treatment

Fibular hemimelia  
According to Paley  
classification

It is

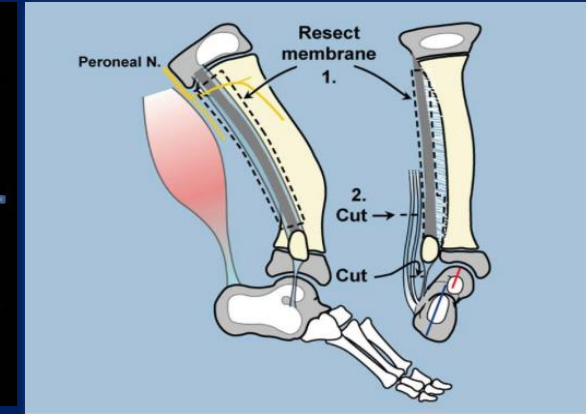
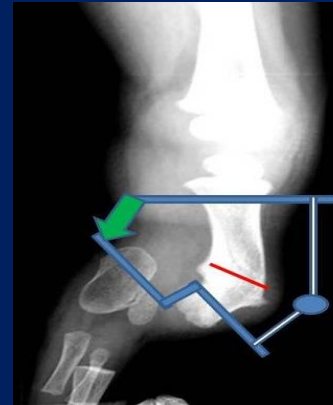
Type 3 A



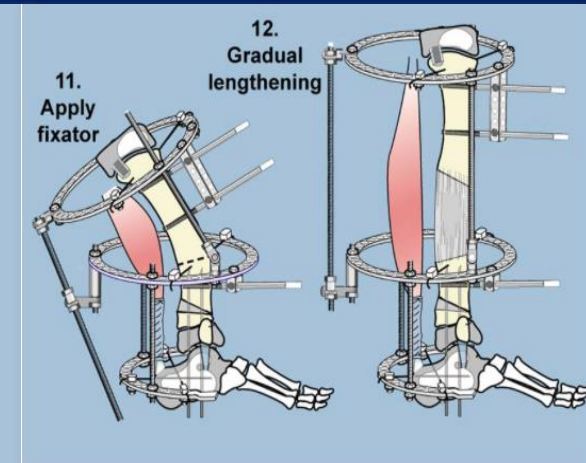
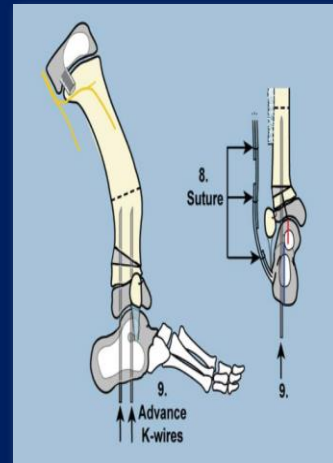
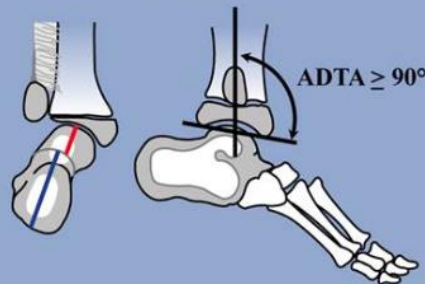
Treatment Strategy- Gradual correction with Ilizarov

## Reconstructive Life Plan by Paley

- Stage 1 -super ankle procedure and lengthening (2 years)
- Stage 2-lengthening(One year after removal of frame)
- Stage 3 - lengthening After 5 years



Type III - Fixed Equino-valgus  
a) ankle type





# Planning and Execution



Result:-  
Corrected the deformity and LLD she needs staged lengthening at various intervals till skeletal maturity

Step 1:

- Pre-operative planning

Step 2

- Stage 1: Anlage excision

Step 3:

- Stage 2: Gradual correction with lengthening

Step 4:

- Outcome after ilizarov removal