

CONGRESSO NAZIONALE SOCIETÀ ITALIANA FISSAZIONE ESTERNA

Fissazione esterna nel trattamento
delle emergenze e traumi militari,
tecniche di ricostruzione degli arti e
trattamento degli esiti posttraumatici

ROMA

2025

16-17 MAGGIO 2025





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Limb Reconstruction
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Ilizarov Tibio-Calcaneal Distraction Arthrodesis for Complex Talar Fractures



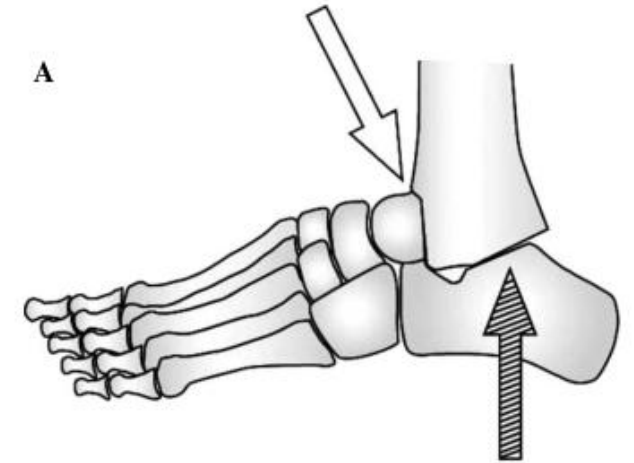
SHAMIR
MEDICAL
CENTER

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- Talus fracture are rare
- Talus fractures have high complication rates.
- The bone loss is an obstacle to internal fixation.
- Pain is managed by fusion,
- Circular ring external fixation fusion technique was described for Talar fractures complicated by AVN and OM

In our study – we have utilized **primary** Tibio-Calcaneal Distraction Arthrodesis for complicated Talar FX, before OM and AVN occur.



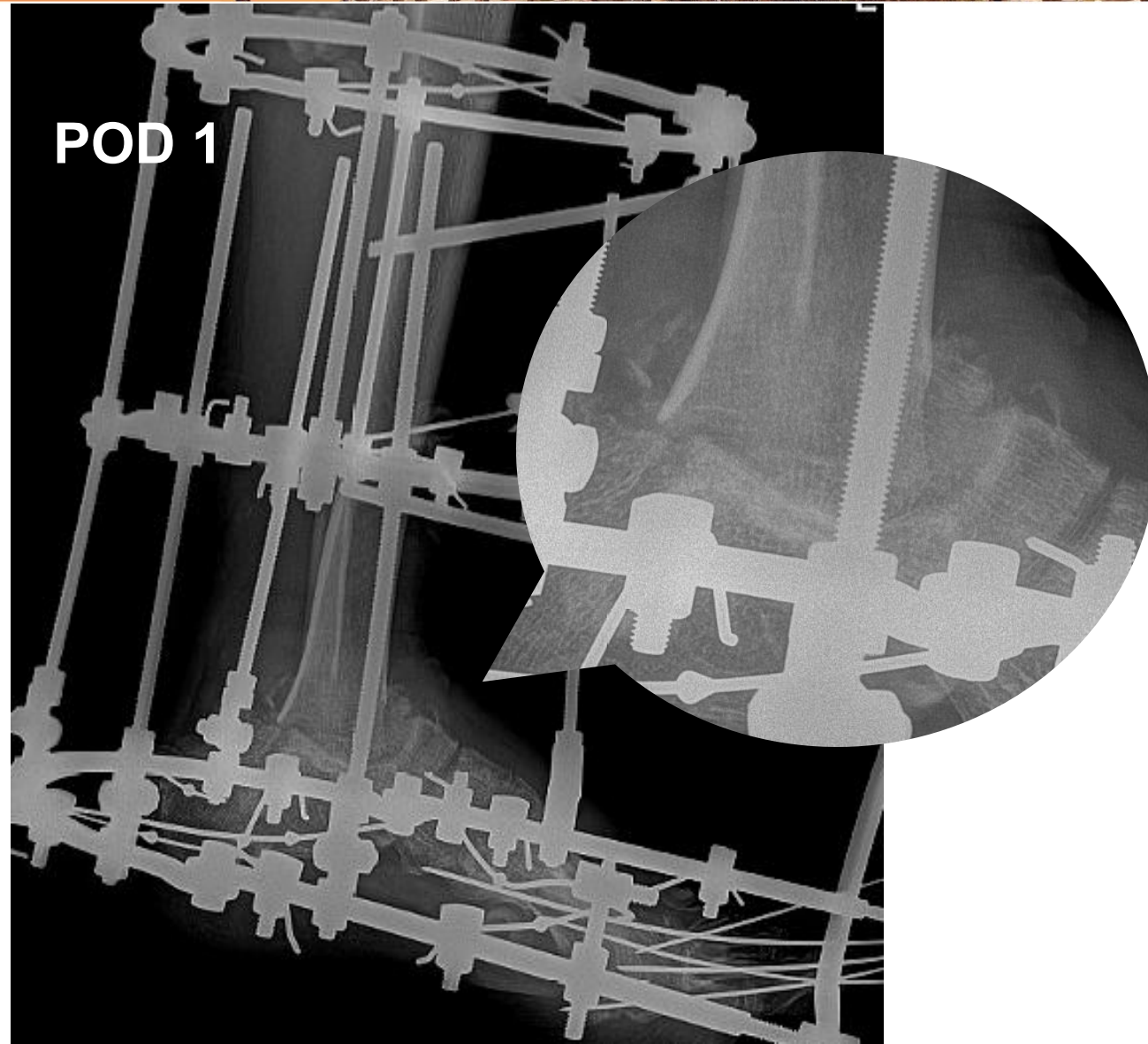


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Day of injury

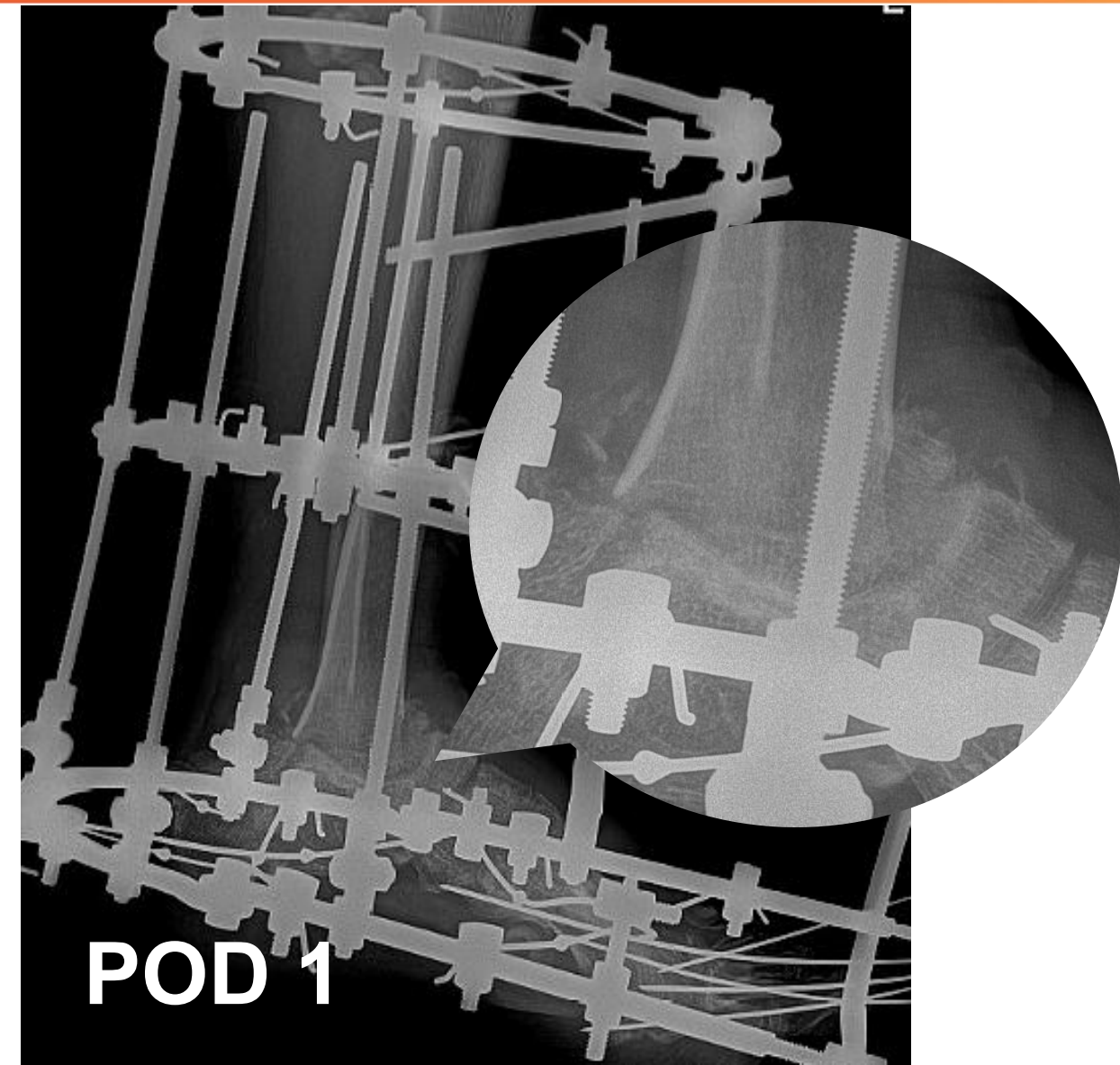


POD 1





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POD 1

2 mo post-op
1 mm/d distraction
PWB





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**2 mo post-op
1 mm/d distraction
PWB**



**6 mo post-op
Callus Ossification
Allowed FWB**





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**6 mo post-op
Callus Ossification
Allowed FWB**



**8 mo post-op
Ilizarov Removal**





#	Patient	Talar Fracture	Other Injuries	Procedures	Time to TCDA	F/U Time
1	17/M Smoker Fall from Height ISS = 29	Open FX Dislocation Hawkins 3 / Gustilo 1	Pilon FX L1 L2 L3 FX Spleen Laceration	Laparotomy Ankle EXFIX	47 d	28 mo
2	21/M Smoker Fall from Height ISS = 17	Closed FX Hawkins 4 / Tscherne 2	Calcaneus FX, Lisfranc FX Humerus FX Facial FX	Cast Splinting	63 d	32 mo
3	19/M Smoker MVC Motorbike ISS = 9	Open FX Dislocation Hawkins 3 / Gustilo 3B	Pilon FX MC 1 FX	Ankle EXFIX MX1 CRIF	92 d	18 mo
4	39/M Smoker MVC Pedestrian ISS = 18	Open FX Dislocation Hawkins 2 / Gustilo ?	Patella FX, ACL PCL LCL Humerus FX Chest Degloving	Ankle EXFIX Humerus IMN Ligament Recon.	24 d	5 mo
5	65/F HTN MVC Motorbike ISS = 13	Open FX Dislocation Hawkins 3 / Gustilo 3B	Pilon FX Thigh Degloving	Ankle EXFIX Skin Grafts	31 d	12 mo
6	40/M Fall from Height ISS = 9	Closed FX Hawkins 4 / Tscherne 2	Pilon FX	Ankle EXFIX	17 d	8 mo

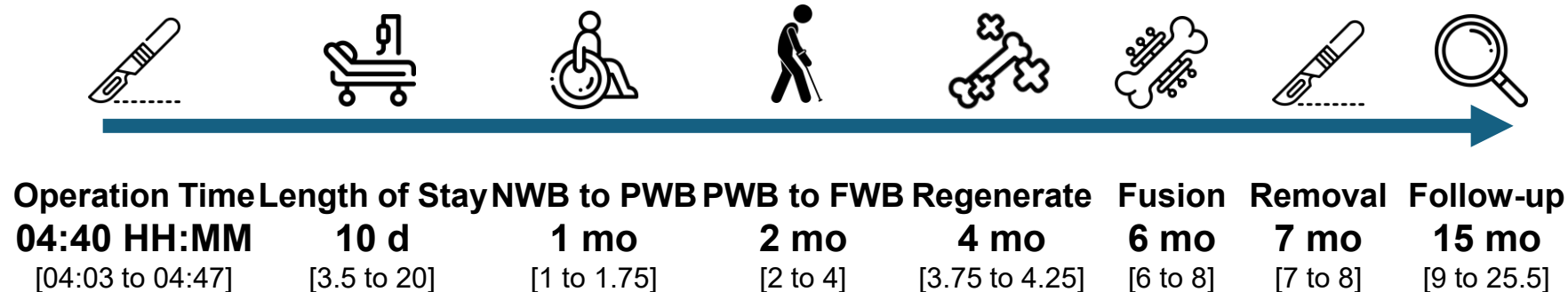


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COMPLICATIONS

- 3 Patients
 - developed **Talo-Navicular pain** within 11 to 18 months
- Minor postoperative events:
 - *Pintract infection treated by ABx*
 - Wound dehiscence
 - included leg length discrepancy





DISCUSSION

- Talo-Calcaneal Distraction Arthrodesis can be used **for complex talar fractures**.
 - Even as a primary operative procedure
- A unique long-term complication is **Talo-Navicular** pain
 - We are considering preventive primary Talo-Navicular arthrodesis

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Grazie mille per l'attenzione