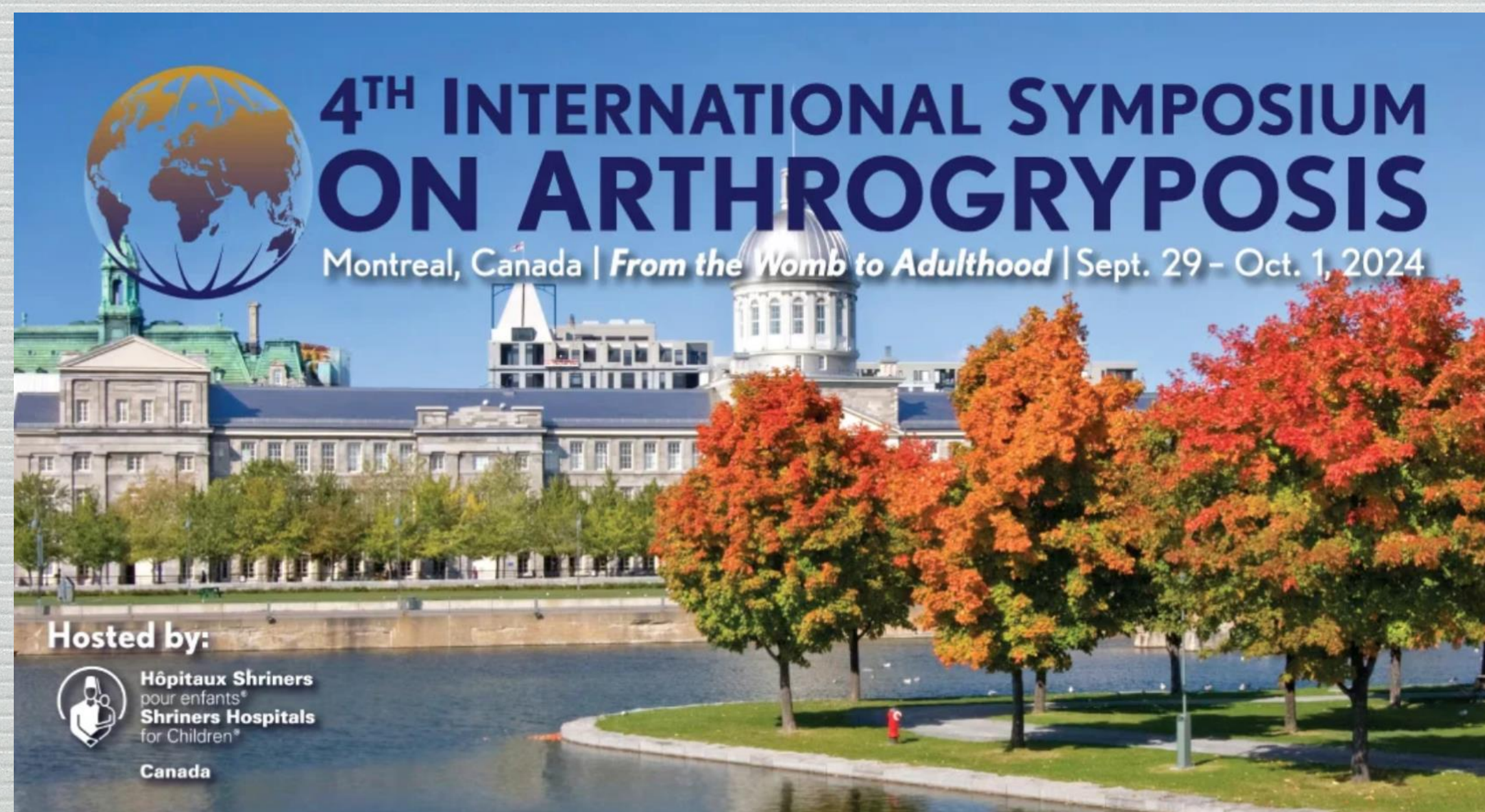




The treatment of foot deformity in patients with arthrogryposis

Valentina Maestri



Methods

- 17 patients
- From 4 months to 14 years old
- 10 patients with Amyoplasia, 1 patient with Sheldon Hall, 6 patient with distal Arthrogryposis
- All patients did genetic tests (but not all results are ready or available)
- 10 patients have positive results for gene mutations

Methods

- Age of the first treatment: from 2 weeks to 6 months
- Number of operations: 2,4
- Hip problems: 7
- Knee problems:6
- Other pathology with need of surgical treatment: inguinal hernia in 2 patients

Methods

- Treatment in **newborn age**:
 - ✦ 14 patients undergone cast treatment and operation,
 - ✦ 2 patients only cast treatment
 - ✦ 1 patient only tape treatment
- **Early relapse** definition for the study: 6 months after treatment

Results

- Early relapse: 5
- Delayed relapse: 8
- No relapse: 4



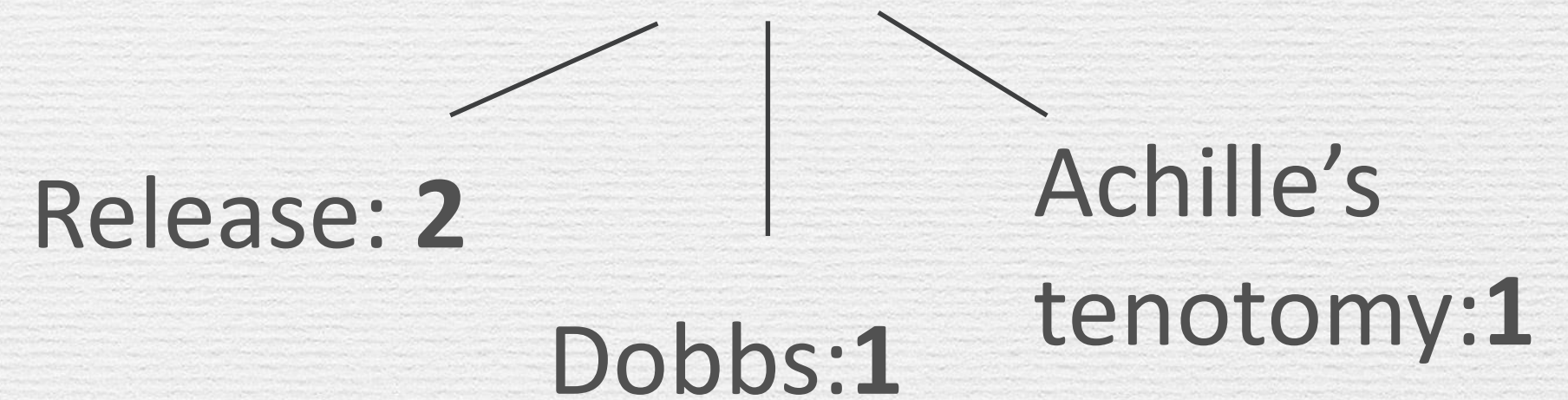
Results

EARLY RELAPSE

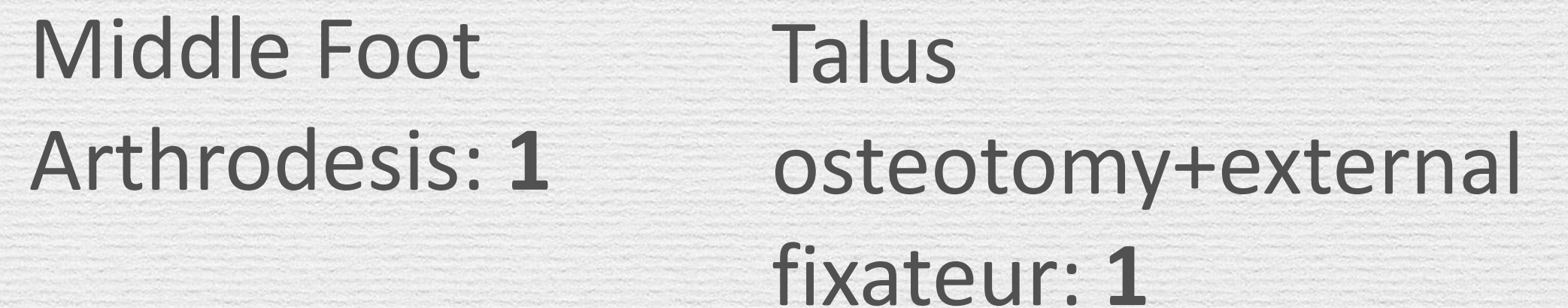
Second Achille's tendon
Tenotomy: **5**

DELAYED RELAPSE

Soft Tissue Op



Osteotomy



Conservative

Custom made orthosis: **2**

Results

- All patients began the treatment after the cast with Dennis Brown orthosis
- 2 patients with early relapse changed to custom made orthosis
- All patients with early relapse that continued the treatment with the Dennis Brown orthosis after the second tenotomy had a relapse in the first 2 years of life
- The custom made orthosis is realized with circular foot part, adjustable joint and double containment for the leg
- 15 patients are in treatment with this kind of orthosis

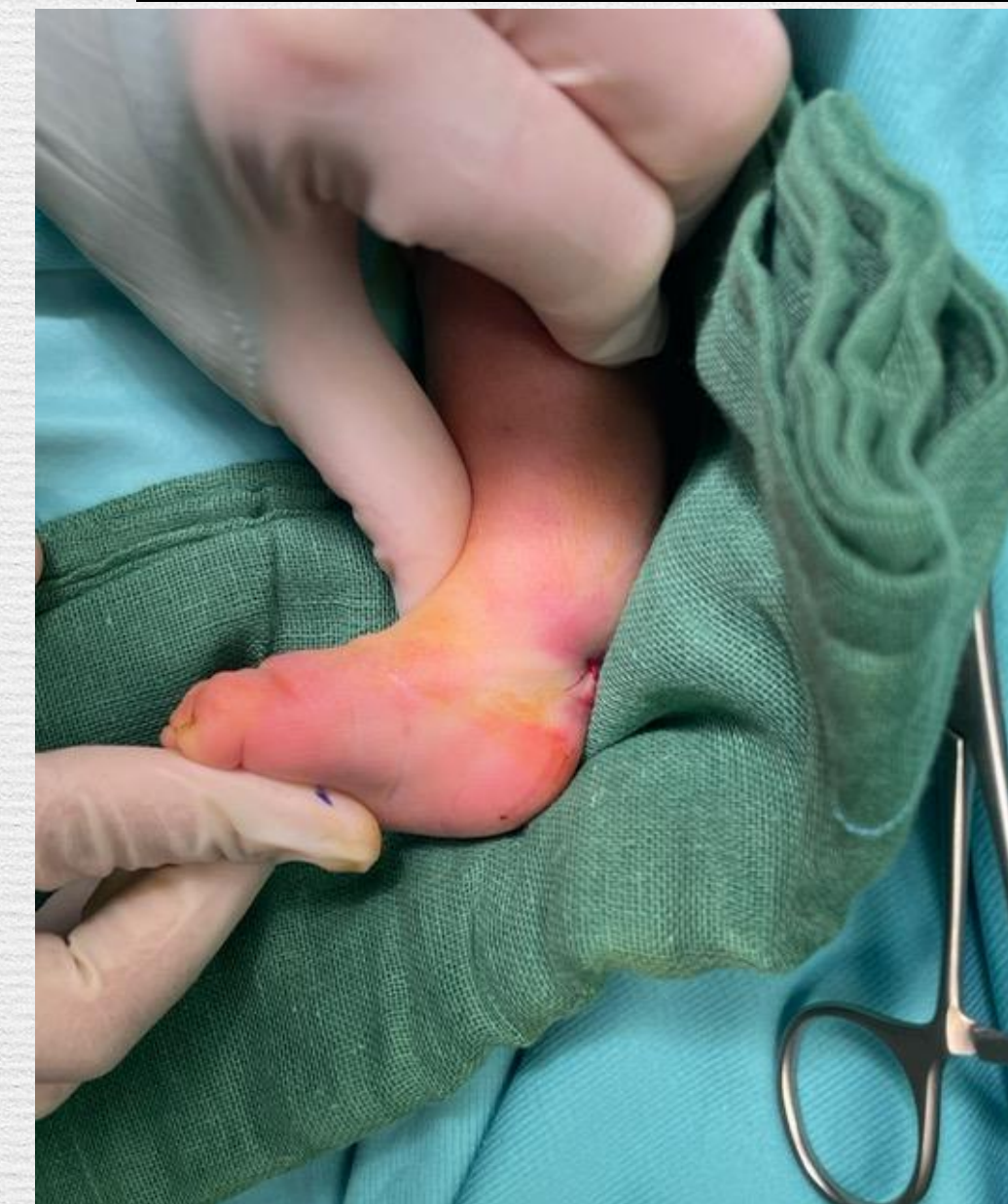
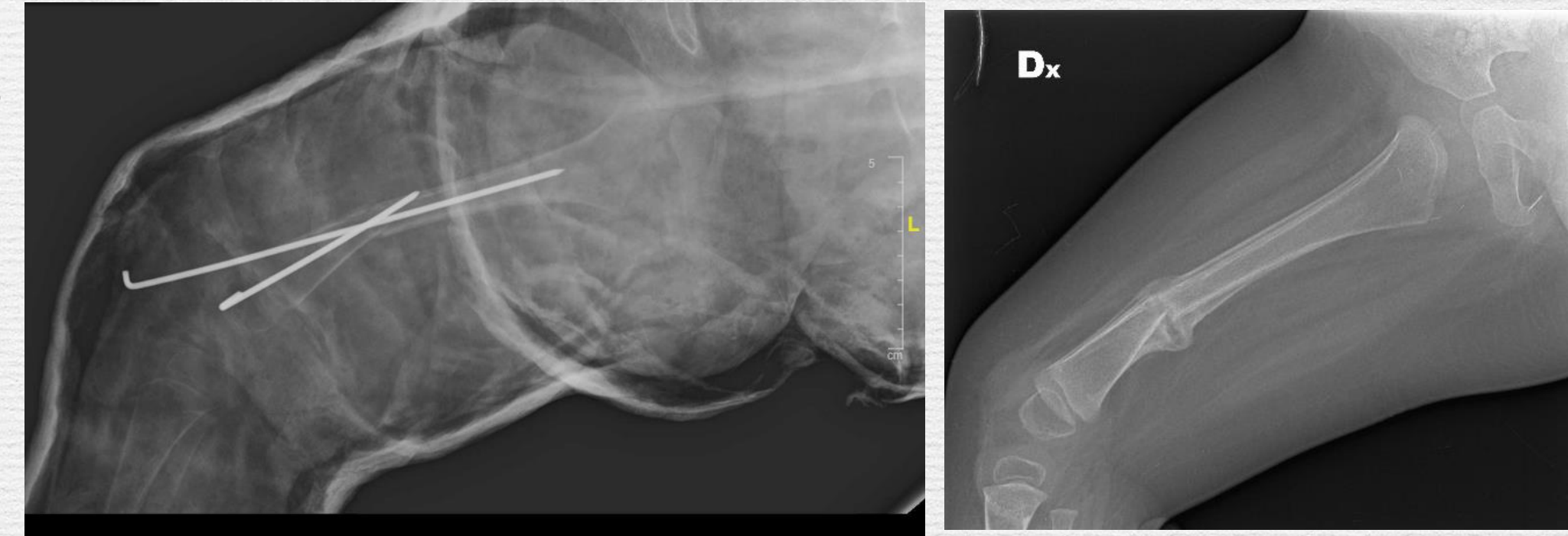
Results: Ponseti Method with Achille's tendon tenotomy

Female,

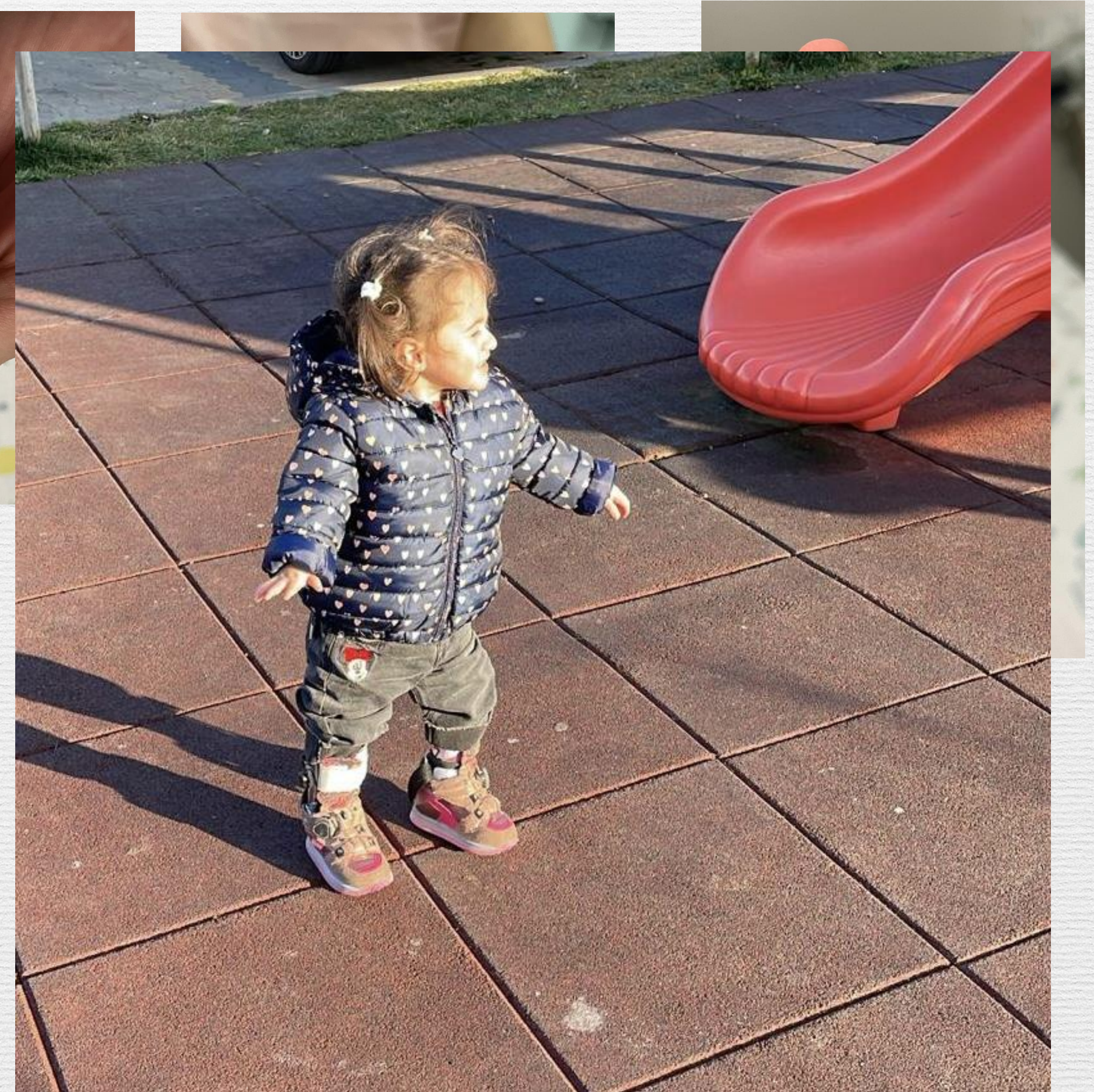
Age at the beginning of the treatment 2 months and 23 days

Other: Knee Extension contracture, hip dislocation

Genetic tests: alteration c.1210C>Tp.
(Arg404Cys) Homozygosis



After 1,5 year: no relapse

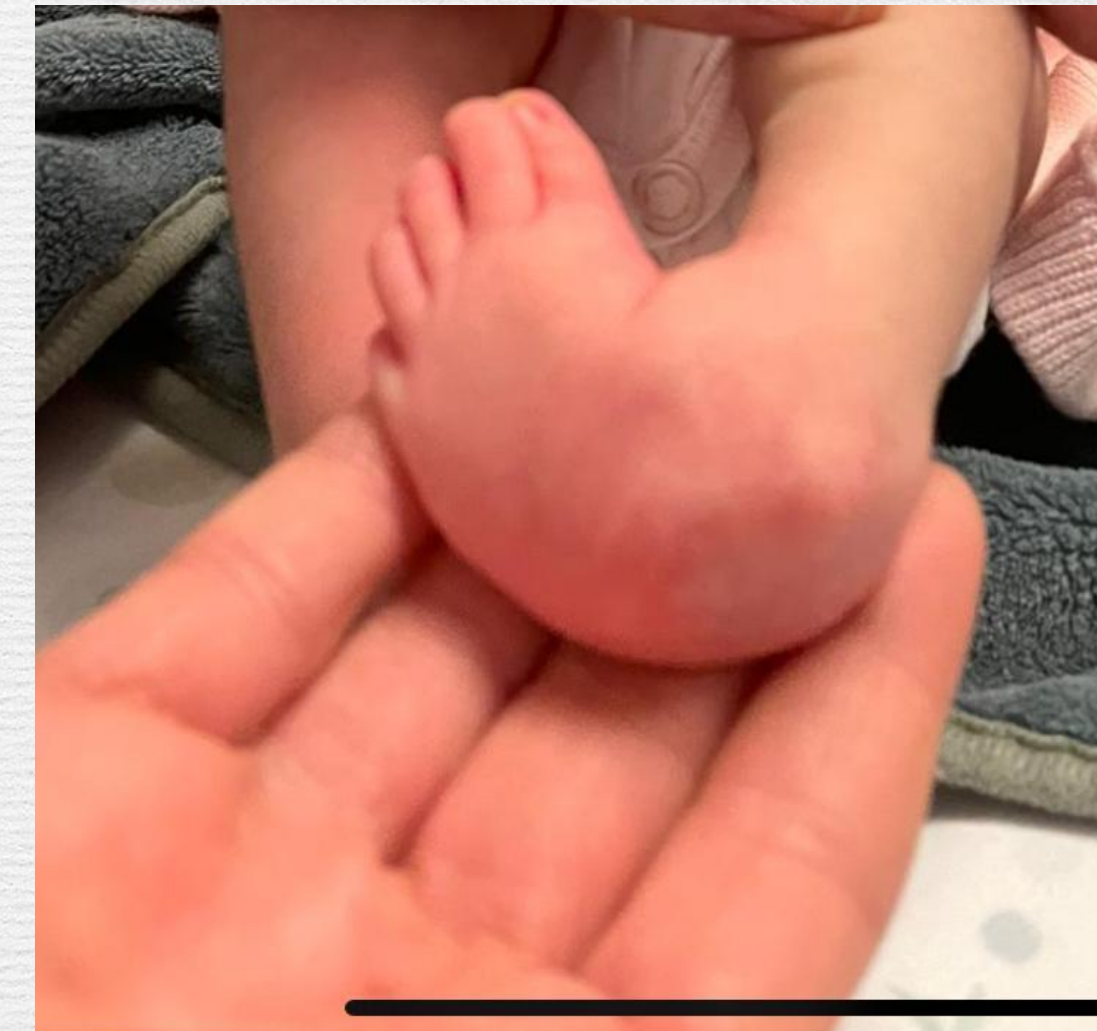


Ponseti Method with Achille's tendon tenotomy

Female

Distal arthrogyryposis (father with same diagnosis)

Age at the beginn of the treatment
18 days of life



Results: relapse after 6 month second Achille's Tendon tenotomy



Talus verticalis, Reverse Ponseti (Human position cast), Dobbs operation and orthosis

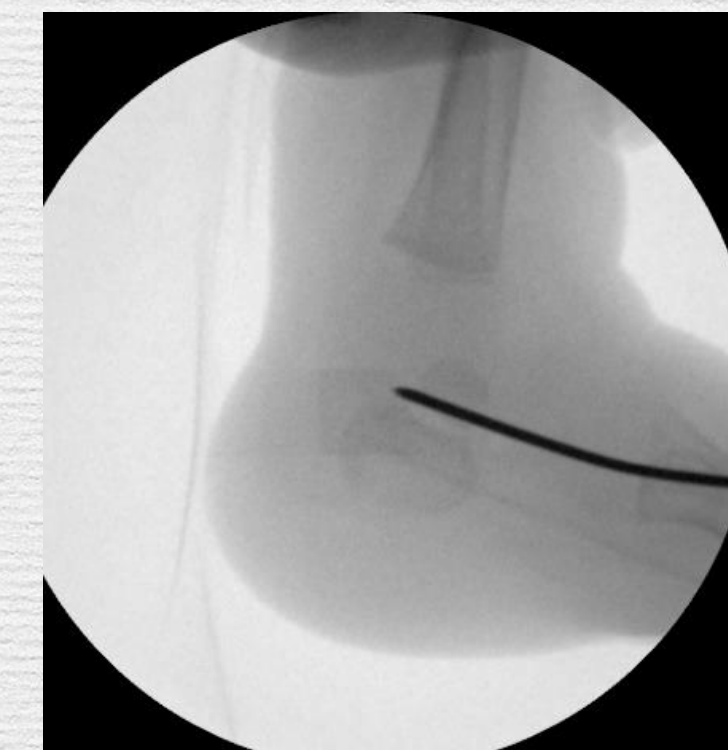
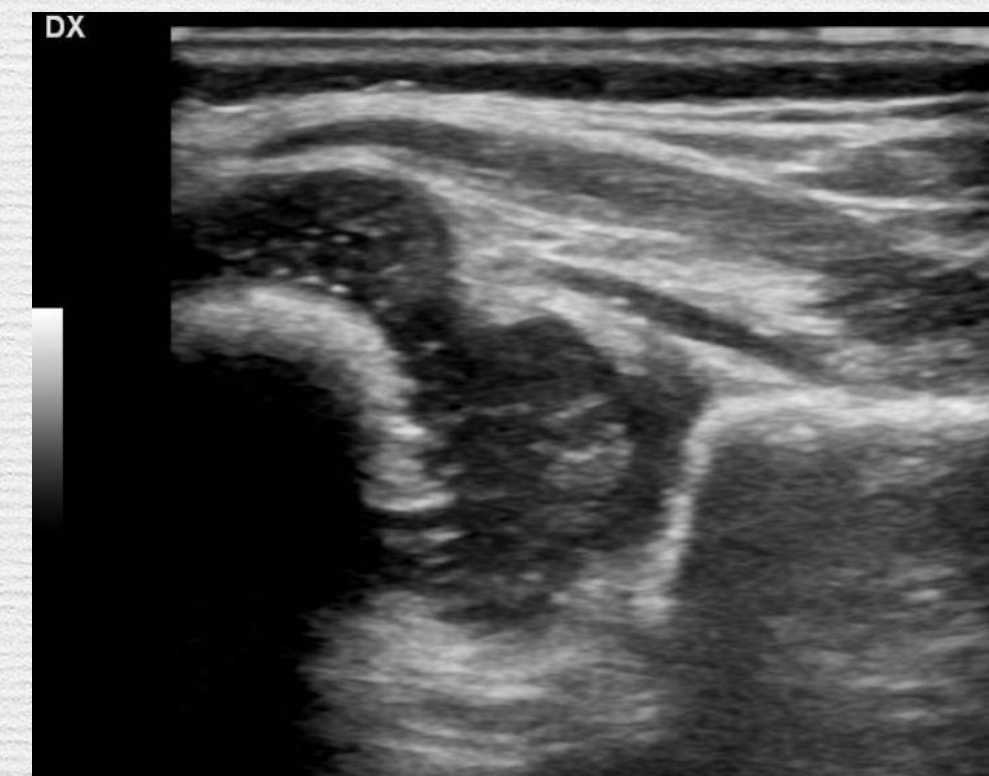
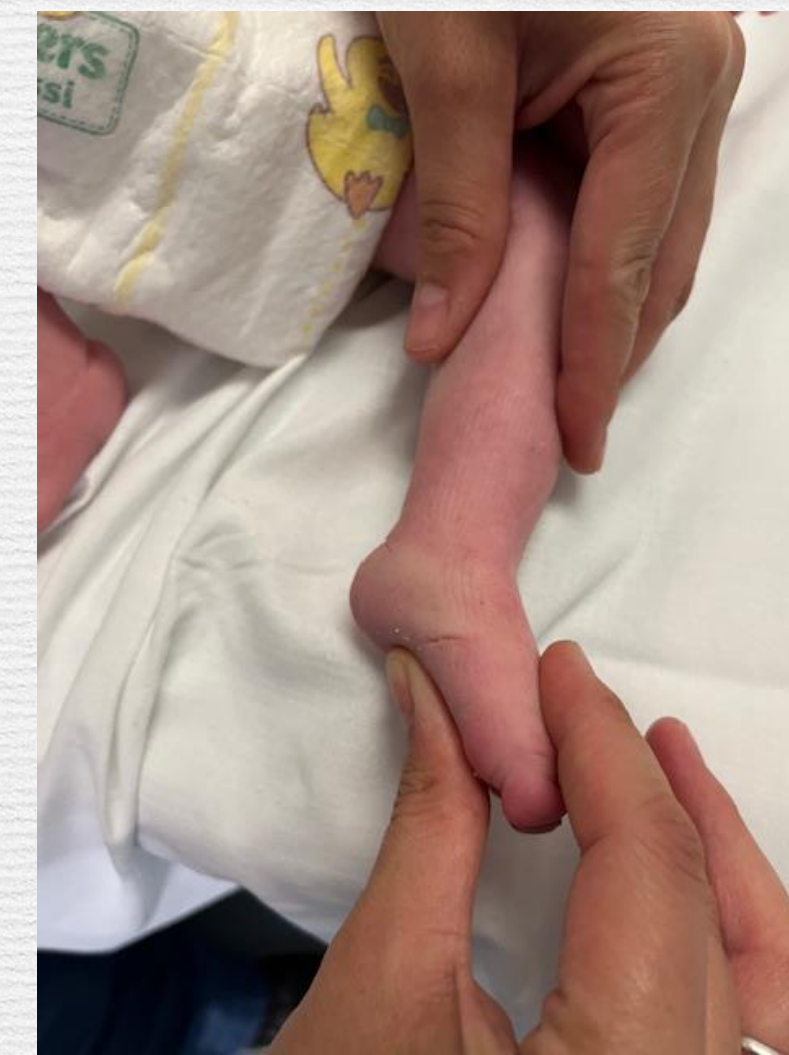
Male

Age at the Beginn of treatment 1 month and 12 days

Hip dislocation on the right side

Knee contracture in Extension

Genetic analysis: Distal Arthrogryposis Type 5D



Talus verticalis, Reverse Ponseti, Dobbbs Operation

Female

Genetic analysis:
alteration $c.1210C>Tp.(Arg404Cys)$

Age at the beginn of the
treatment: 13 days of life



Relapse After 2 years on the left side, new Dobbs Operation with tibialis anterior lengthening and orthosis treatment



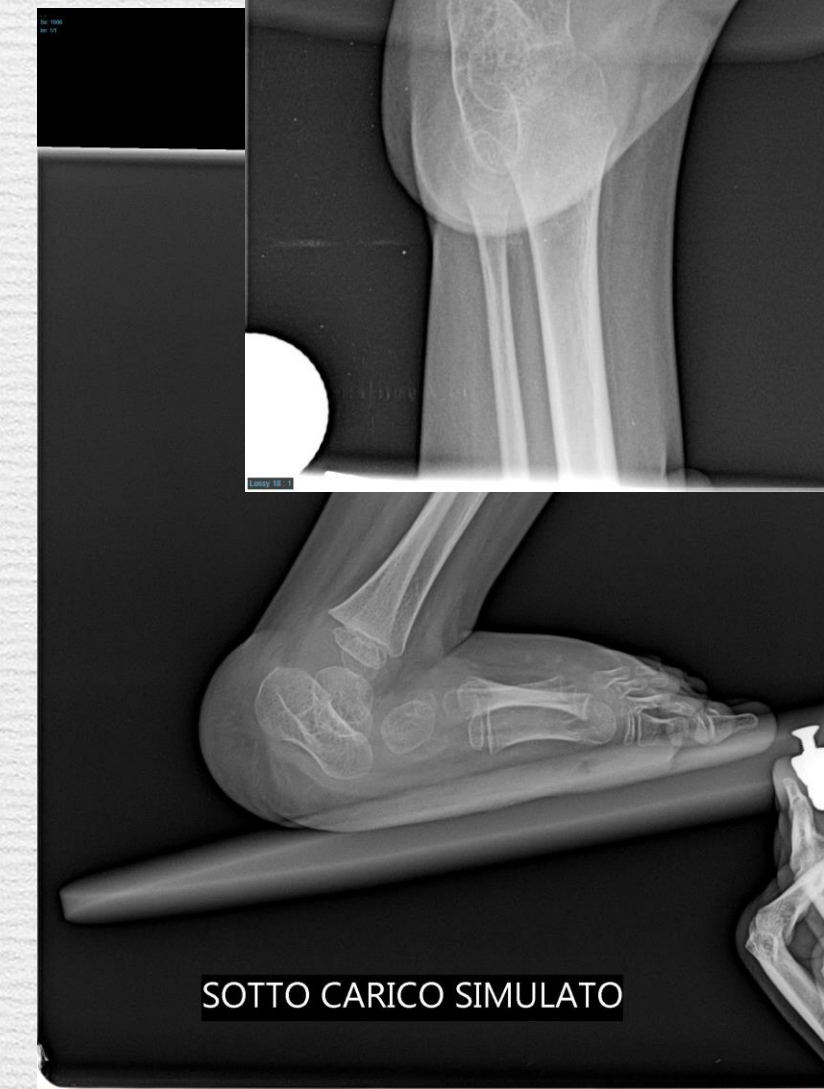
Relapse after neonatal Ponseti treatment in an other hospital

Female

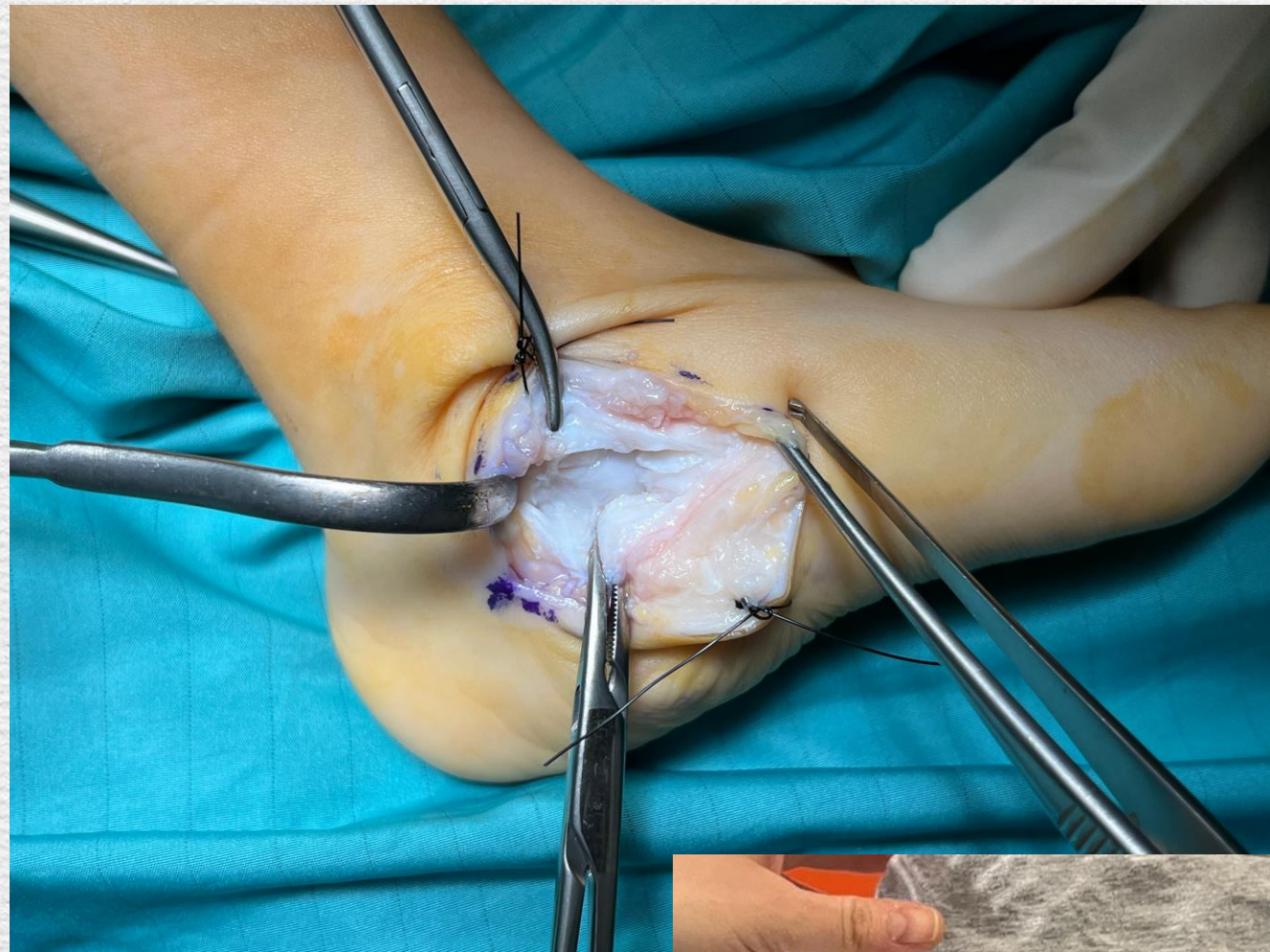
Genetic test: Not ready

Relapse time: no specific information about that

Age of the treatment for the relapse 4 years and 6 months



Results: soft tissue operation



Full time orthosis even for the summer season!



Painful relapse after cast treatment in neonatale age and operation (other country, no documentation)

Male

Genetic tests: not ready



Age of the treatment:

12 years old



Results: surgical treatment with arthrodesis and custom made orthosis

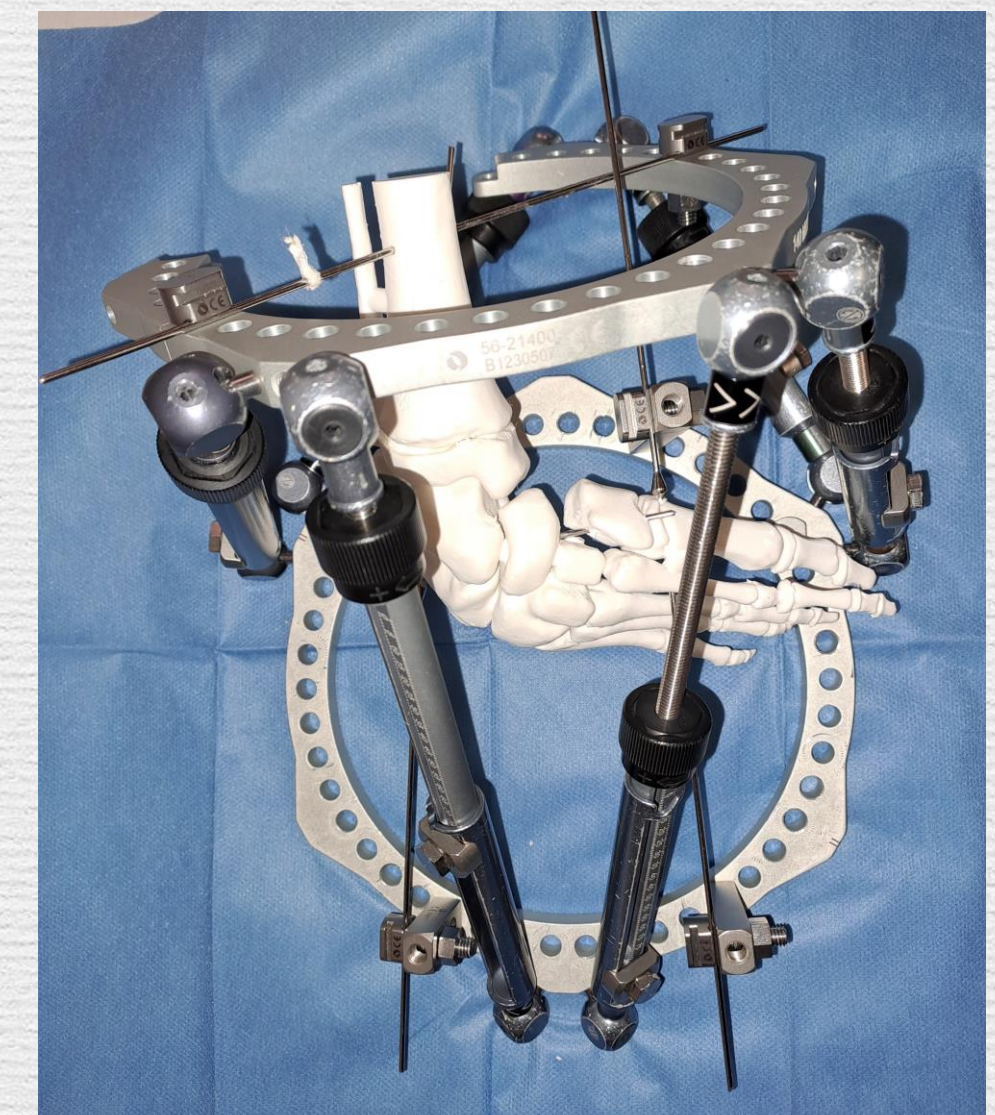
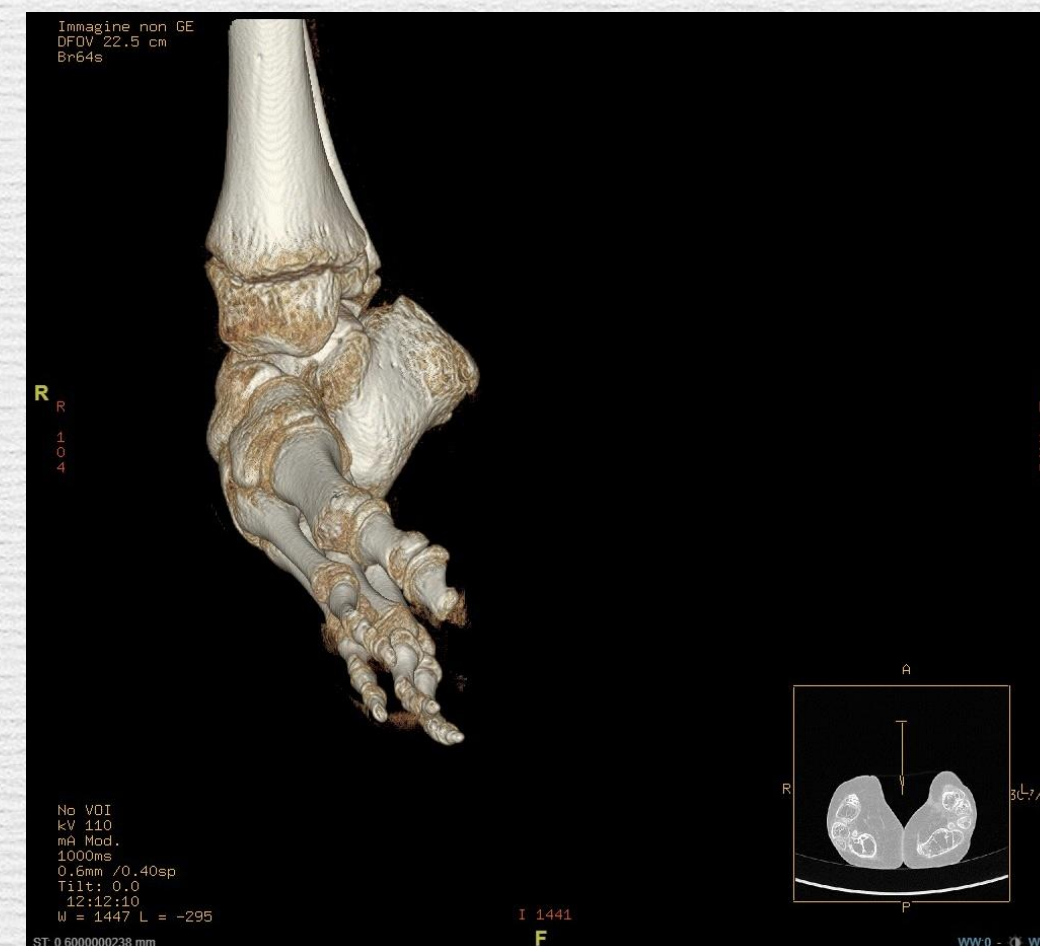


Cast treatment in neonatal age with cast without tenotomy, 4 Operations for relapse in other hospital

Female

Genetic test: not ready

Age at the treatment of the relapse 9 years old



Talus osteotomy, soft tissue release and external fixator



After 4 months of treatment and postoperative care with custom made orthosis



Limitations

- We have small group of patients, not all patients did the first treatment in our hospital and had for this reasons multiple approaches, the group ist heterogeneous

Conclusions

- Centralization of the patient
- Accurate planning for the patient
- Postoperative care
- Custom made orthosis
- Relapse: great challenge!



Thanks



Thanks

