Treatment of congenital pseudarthrosis of the tibia by a vascularised fibular graft

Poul,J ., Veselý, J*. , Bajerová J.

Pediatric Surgery and Orthopaedics, Brno Czech republic

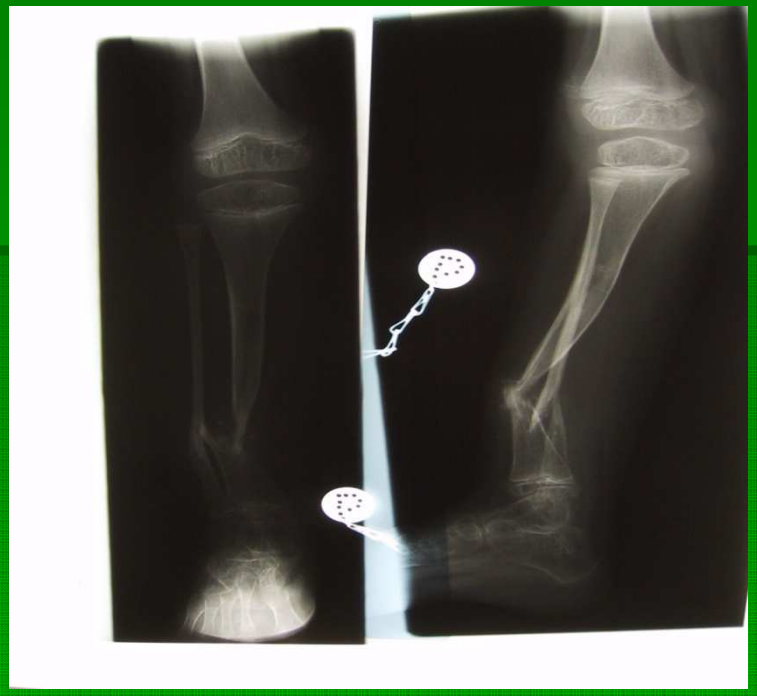
*Plastic surgery, Brno

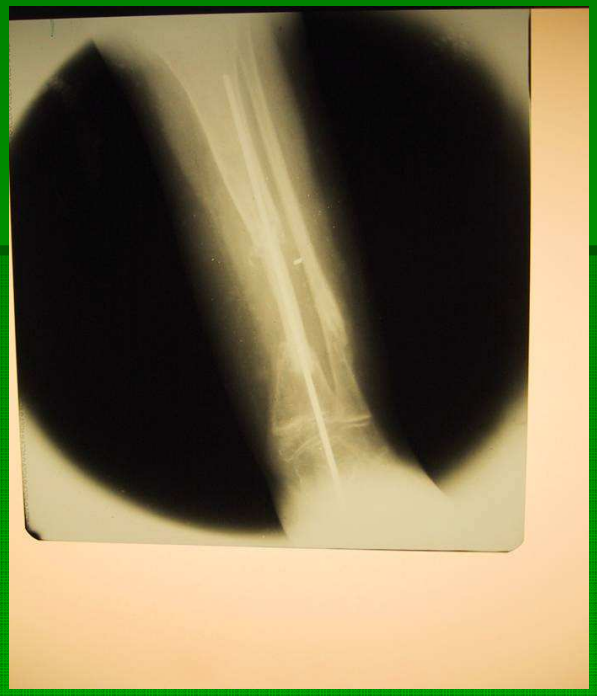
Treatment is based on this principles :

1. Resection of the pseudoarthrosis over the margins of the healthy and bleeding tissue.

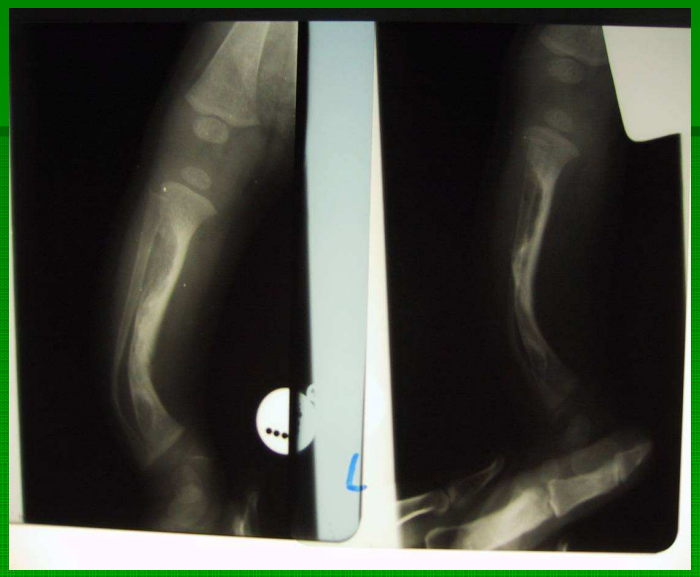
2. Over-bridging of the bone-defect by a transplantated fibular graft on the vascular pedicle.
3. Mikroanastomosis of the artery and vein.

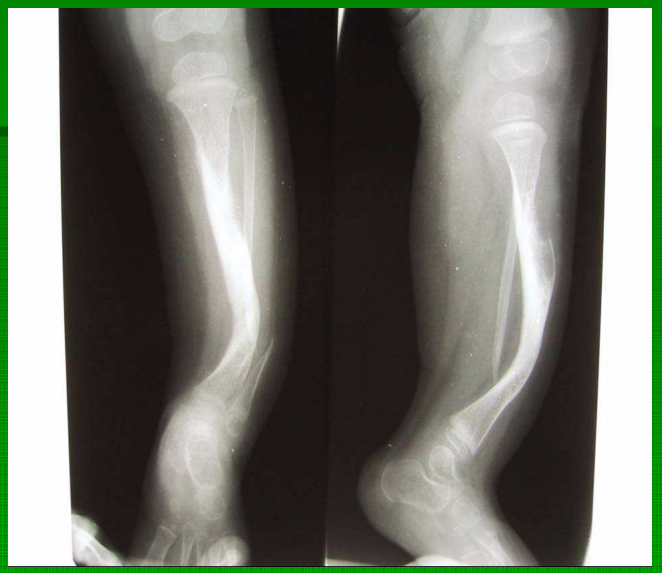
No 1 additional spongioplasty at the proximal pole of the graft was necessary 6 yrs

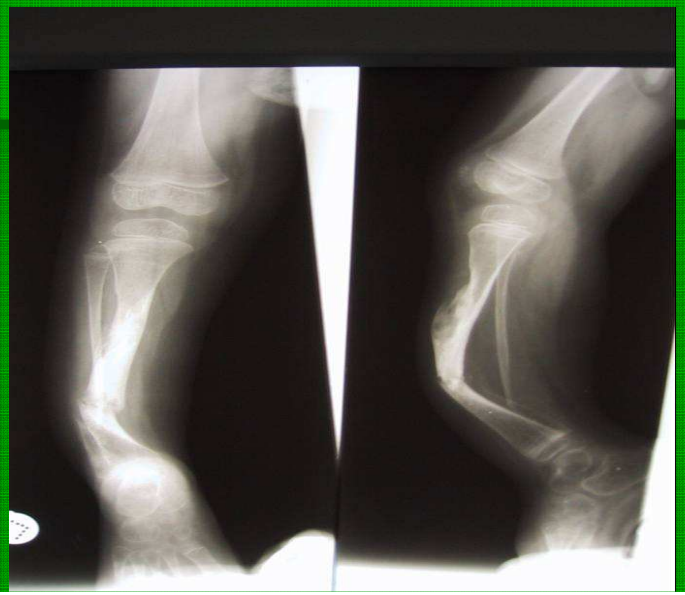




No 2 Multiple cystic lesions, anterolateral bowing and finally fracture developed, additional spongioplasty was necessary 6 yrs

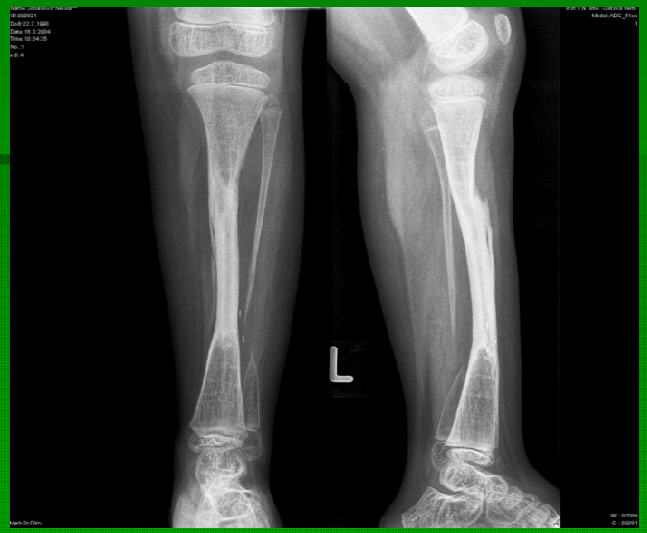




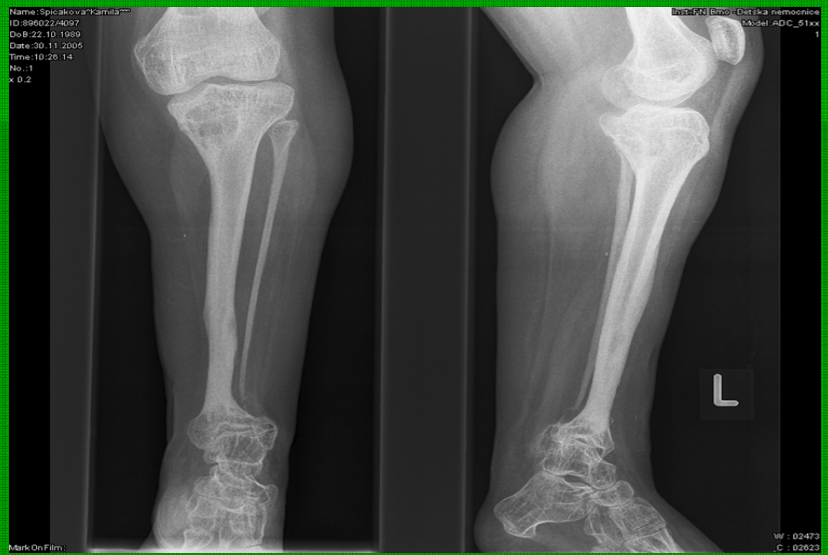


No 2 The same patient. Incorporation of the graft and its gradual thickening is apparent

6 yrs



No 3 Severe deficiency of bone tissue after repeated operations. Vascularised graft healed in, however distal tibial physis was already lost .10 yrs



No 4 Routine method and course of treatment. Postoperative angiography showed primary vascularisation of the graft. Gradual thickening of the graft is apparent, the growth deformity of distal tibia is apparent. 3 yrs

No 5 Last patient, short follow up, rapid incorporation of the graft 2 yrs.

Structure of the followed cohort

- Crawford type IV in 4 out from 5 pts.
- Periheral neurofibromatosis in 4 from 5.
- Age at OP 2y+8M - 8y.+10M
- Male 3 times, female 2 times
- Duration of OP 130-200 minutes
- Additional spongioplasty in 2 from 5 pts.

- Duration of the treatment concerning full incorporation of the graft 6M-21 M
- Resulting LL difference 10-90 mm
- Duration of the follow-up 3-10 years

- Thanks for Your interest for this paper