WITTENSTEIN | intens

Antegrade femur lengthening with FITBONE®

Case Report – Prof. Franck Accadbled MD, PhD

Smarter Limb Lengthening

Preoperative situation – Proximal nonunion at age 11.

Revision with repeat bone grafting and plate fixation.

Valgus deformity and 6.6 cm shortening when 14 years old. No further growth was expected at the distal femur due to primary tumor excision.

„I went antegrade as the osteotomy had to be done proximally because I did not want to involve a segment which had already been grafted.“

Prof. Franck Accadbled MD, PhD
Orthopédie Traumatologie Hôpital des Enfants - Toulouse France

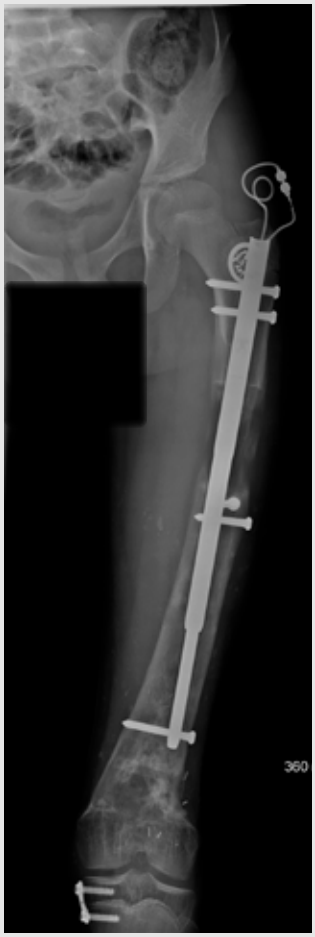
Condition:
The boy developed an osteosarcoma on the left distal femur at the age of 9.

Patient History:

- Surgical excision sparing the knee joint left a bone defect of half of the femur in length
- Initial reconstruction was done according to the induced membrane technique
- Proximal nonunion was managed with repeat bone grafting and plating
- The patient was referred at the age of 14. He was presented with a 6.6 cm limb length discrepancy (LLD) and an 8 degree valgus

Disclosure:
Prof. Franck Accadbled MD, PhD is a consultant of WITTENSTEIN intens GmbH.

Antegrade FITBONE® TAA1180 with 2 blocking screws to achieve desired correction according to Reverse Planning Method. Immediate postoperative view.



End of distraction 12/52 postoperative displaying 8 cm gain and callus formation.

Latest follow up 1 year after removal of the FITBONE® TAA1180. Equally long and aligned limbs. Knees not leveled because of left tibia overgrowth of 2 cm of unknown origin.

Operative Procedure:

Antegrade FITBONE® TAA1180 was used after careful preoperative planning according to Baumgart's Reverse Planning Method. 2 blocking screws were necessary to achieve perfect alignment. Proximal reaming was performed with straight reamers up to 12.5 mm through the dedicated tube system. Percutaneous osteotomy was performed 2 cm below the lesser trochanter. The proximal segment was protected from overreaming and ovalization by a long tube, and the distal segment was reamed up to 11.5 mm. Proximal locking was done with the targeting jigs and distal locking by hand via fluoroscopy. Associated valgus of the tibia was concomitantly treated with an 8 plate. Postoperative phase was uneventful and the patient was discharged from hospital on the third day. Distraction by the patient was started on the 3rd postoperative day at the daily rate of 1 mm. 8 cm lengthening was achieved to compensate current LLD and also anticipate further growth from the contralateral side.
Healing index was 29 days/cm. Full weight bearing was possible after 3 months.

Postoperative Results:

The implant was removed 18 months after surgery. Residual LLD was 3 mm. The last follow-up 4 years after the surgery the patient showed full-range knee motion; the patient was successfully involved in sports activities.

WITTENSTEIN | intens

For more information about the FITBONE®, please contact your local sales representative.

Heartwood Enterprise, Inc.
info@fitbone-us.com • +1-704-756-1296 •
www.fitbone-us.com

WITTENSTEIN intens GmbH
Walter-Wittenstein-Straße 1 • 97999 Igersheim • Germany

Tel. +49 7931 493-0 • Fax +49 7931 493-10906
info@wittenstein-intens.com

Rx Only.

Please refer to the FITBONE® instructions for use for complete important safety information.

CE 0123

WITTENSTEIN – one with the future

www.fitbone-us.com