

TL-HEX + G-BEAM CASE REPORT

1. Case presentation

Patient details: This is a 64 year-old woman with history of Type II diabetes status post left BKA. She presented with a complicated Charcot foot affecting the right lower extremity with wound on the bottom of her foot that has been present for 10 months. This is an atypical case in where it is all a soft tissue dislocation that has been present for over a year. She has seen multiple podiatrists for local wound care and was recommended amputation from other surgeons. Patient presents for another opinion to salvage the right foot.

Note: This case report shows an individual's response to treatment. The information contained in this case report is provided for informational and educational purposes. It is not intended to guarantee the response other people may have to the treatment as responses to treatment can and due vary. Proper surgical procedure is the responsibility of the medical professional. Each surgeon must evaluate the appropriateness of a technique based on his or her personal medical credentials and experience.

Pre-operative pictures and X-rays

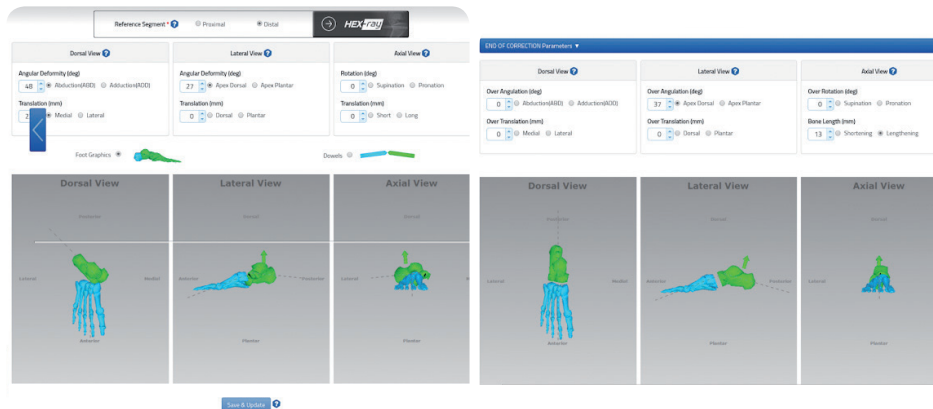


Right foot with equinus, valgus, 48 degrees abductus with 22mm of lateral translation.

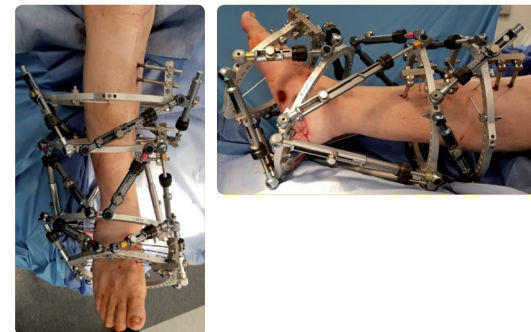
2. Treatment strategy

STAGE 1

Gradual correction of deformities by using TL-HEX.

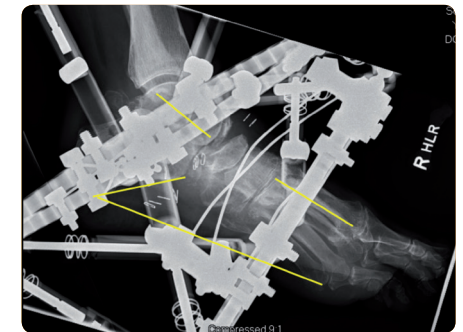


Post-operative pictures



Miter frame with an extra ring on the proximal tibia that was added to strengthen the whole construct. The Miter frame was used to separately address the hindfoot equinus and valgus and the foot portion was to correct the abductus and translation via a mid foot percutaneous gigli saw osteotomy.

Follow-up at 9 weeks

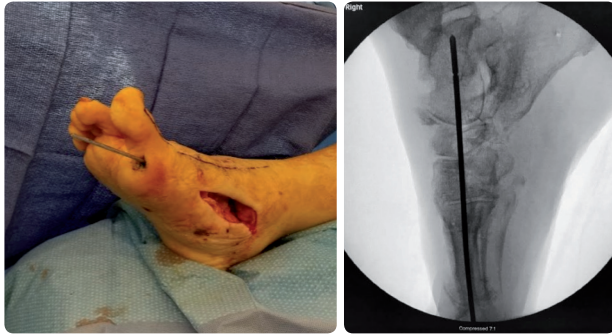


Meary's angle is realigned to 0°.

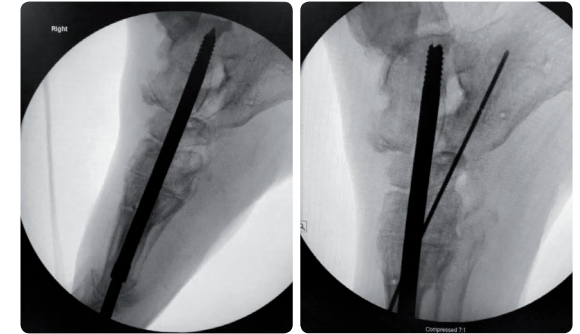
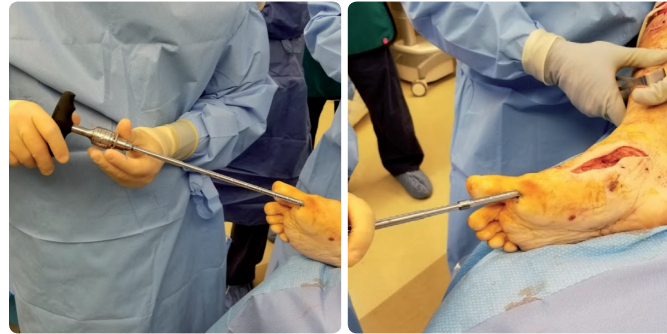
STAGE 2 (After 12 weeks)

Frame removal and beaming of medial and lateral column with two G-Beams, in one surgery. Fusion of the subtalar joints was not needed as it was rigid after medial and lateral column fixation.

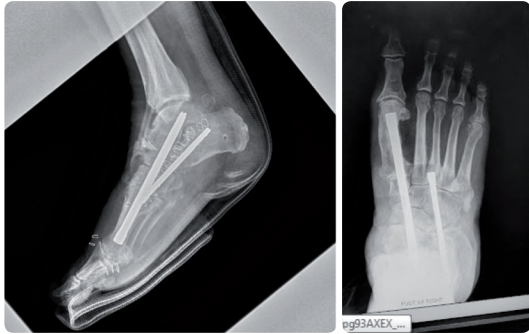
Intra-operative pictures and fluoroscopies



Surgery time including medial incision for the preparation of the joints and removal of the remaining cartilage: 1 hour and 30 minutes.



Post-operative X-rays and pictures



After surgery, the patient was non-weightbearing for 10 weeks.

3. Follow up



PRE-TREATMENT POST-TREATMENT

Follow-up at 9 months after implantation of the G-Beams and 1 year after initial surgery with TL-HEX

- Stable medial and lateral column fusions were obtained
- No complications occurred: no implant migration or breakage, no infections or loss of correction
- No revision surgeries were performed
- No amputation was required
- The patient is very satisfied with the outcomes

Orthofix conclusions

This case report shows that the two-stage treatment with TL-HEX and G-Beam was a successful strategy for treating this complex deformity. The surgeon was able to correct the foot deformities and to obtain a stable foot and at 1 year follow-up no complications were observed and no revision surgeries were needed. Moreover, the patient's limb was saved.

The patient is very satisfied with the results of the treatment.

Surgeon's comments:

Charcot foot treatment has evolved and has become more predictable with regard to outcomes due to advances in hardware and techniques available to surgeons. This case illustrates the need to recognize the magnitude and multiplanar aspect to the deformities present in the Charcot foot. Once the surgeon measures and quantifies the amount of correction needed, the appropriate treatment can be selected. Large deformities require gradual deformity correction via computer assisted hexapod external fixation. Once the correction is obtained then with the use of beaming and trussing the foot can be properly fixed and maintained in a stable position. Lastly, the presence of a wound is not a contraindication to performing these surgeries.

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