

Medical Education Series

Treatment of Displaced Intra-Articular Calcaneal Fracture

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PATIENT HISTORY AND DIAGNOSIS

A 54 year old with displaced intra-articular calcaneal fracture Sanders 4.

Some authors have reported that filling of bone defects with open reduction and internal fixation (ORIF) of displaced intra-articular calcaneal fractures (DIACF's) is unnecessary.

However, we have observed reduced calcaneal height of the posterior facet and reduction of Bohler's angle when full weight bearing is allowed at 3 months in patients with significant bone defects after fracture reduction treated with ORIF LCP alone.



Figure 1 & 2. X-ray of fracture.

TREATMENT

- Open reduction and internal fixation.
- Augmentation with CERAMENT BONE VOID FILLER.
- Gradual weight bearing up to 3 months and then full weight bearing.
- Removal of plate after 4 months due to discomfort of the surgical wound with no signs of infection.



Figure 3 & 4. X-ray immediately post surgery.

OUTCOME

- At 7 months patient demonstrated a good result.
- Maryland Foot Clinic Score Clinical Evaluation = 87/100 points.
- CERAMENT BONE VOID FILLER is an option for management of DIAF's.
- It enables reconstruction of large bone defects, allows for functional recovery and prevents post operative reduction of calcaneal height of the posterior facet.



Figure 5. X-ray 30 days post surgery.



Figure 6 & 7. X-ray 45 days post surgery.



Figure 8 & 9. X-ray at 5 months post surgery after removal of plate.

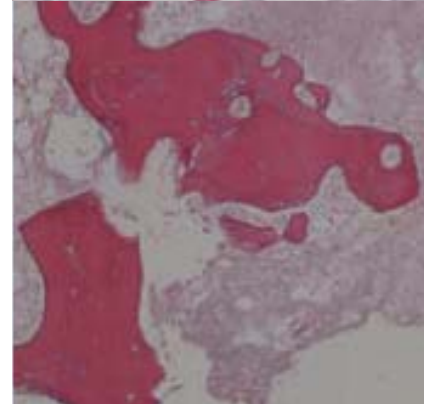
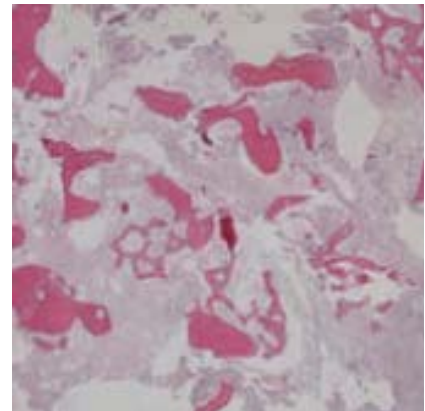


Figure 10 & 11. Histology at 4 months showing new bone growth.



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