



Case Report:

Management of a Metatarsal Delayed Union with **CERAMENT**®|BONE VOID FILLER

Jeffrey C. Karr, DPM

Lakeland Regional Medical Center, Lakeland , Florida , U.S.A.



PATIENT

41 year old male

DIAGNOSIS

- Metatarsal delayed union.
- Conservative treatment unsuccessful (weekly debridement, pressure off-loading, grafting and collagen-based dressings).
- Lower extremity arterial circulation had no significant stenotic disease.
- Medical history significant for type 2 diabetes, hypertension, coronary artery disease with history of MI, chronic renal insufficiency, anemia and obesity.
- Right chronic diabetic foot ulcer at a prominent first meta tarsal head.

TREATMENT

- Mid foot fusion with external fixation at the first meta tarsal cuneiform joint to raise/dorsiflex the first metatarsal head decreasing pressure at the diabetic foot ulcer.
- Ulcer measured 2.0 x 1.0 x 0.5 cms located at the plantar right foot superficial to a prominent first metatarsal head.
- Delayed healing at weeks post operative.
- Patient was concerned since he only had a few sick days left, placing his employment at risk.
- A bone stimulator was started the following week, after 3 weeks there was no significant bone healing.
- 2 months post operatively surgical intervention for the percutaneous delivery of CERAMENT®|BONE VOID FILLER at the site of metatarsal delayed union utilizing intra-operative fluoroscopy.

OUTCOME

- CERAMENT® strengthened the delayed union site and accelerated osseous healing and union immediately.
- 5 days post operatively the mini-external fixator was removed and the patient returned to work the following day.
- At 1 year post operatively the patient was progressing well without incident.



Picture 1. Chronic diabetic foot ulcer at a prominent first metatarsal head.



Picture 2. Percutaneous delivery of CERAMENT® was accomplished at the metatarsal delayed union site.



Picture 3. At one year post-operative, the patient is progressing without incident.



Restoring health to improve the quality of life for patients with bone disorders.

BONESUPPORT, INC.,
60 William St, Suite 330, Wellesley, MA 02481
T: 1.877.719.6718

www.bonesupport.com