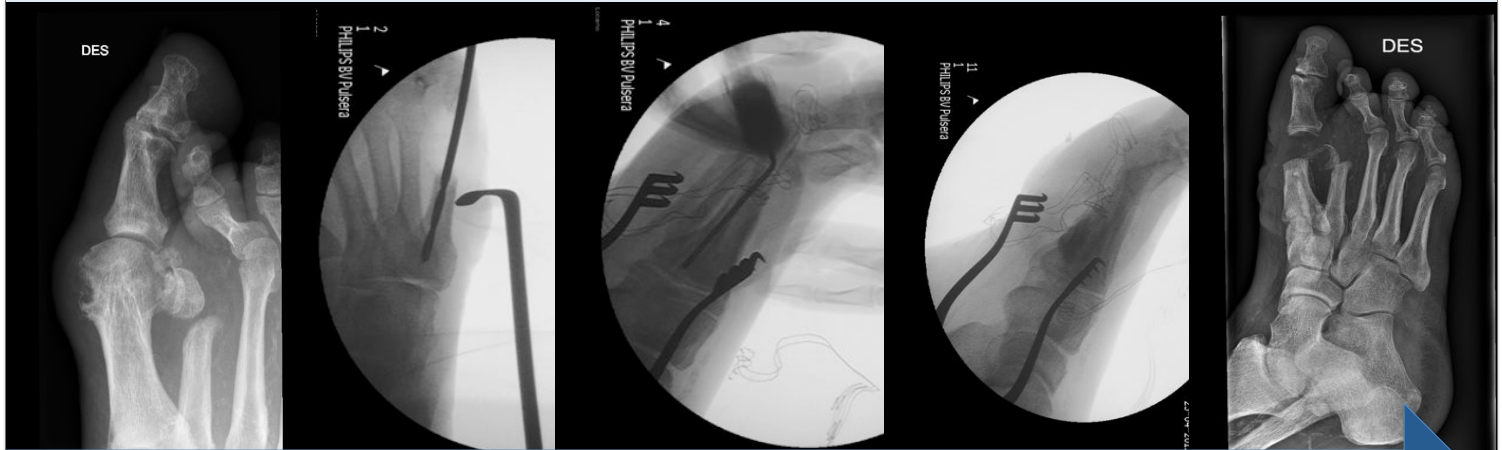


# Antibiotic Loaded Resorbable Bone-Graft Substitute: A New Treatment For Osteomyelitis In Diabetic Foot Syndrome



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Osteomyelitis    Bone Drill    Bone Filling    Bone Graft    Post Op

## Summary

Gender	5 men, 1 woman
Mean age	67 years
Diabetes mellitus	4
Peripheral artery disease	5
Polyarthritis	1
Dialyse	1
Immunsuppression	1
Cierny-Mader Stage	1xIII, 4xIV
Wagner Armstrong	1x3B, 3x4B
Metarsal Bone	2xI, 1xIII, 1xIV, 3xV
Mean follow up	85 days
Culture	11 (2xStaphylococcus aureus, Staphylococcus epidermidis, Enterobacter cloacae, Morganella morganii, Enterococcus avium, Enterococcus faecalis, Bacteroides fragilis, Citrobacter koseri, Citrobacter freundii, Klebsiella oxytoca)
Wound healed	5
Wound healing disturbed	1
Wound: fluid leakage	6
Bone biopsy:	2xpositive, 3xnegative
Osteomyelitis	
Osteomyelitis signs on x ray	2
Recurrence of infection during the follow up	no
Primary wound closure	5
Sekundary wound closure	1
Sponge gentamicin	6
Antibiotic loaded riabsorbable bone-graft substitute	6
Malum perforans	2

## Objective:

Diabetic foot syndrome with osteomyelitis of metatarsal head show frequent recurrence and need a very long antibiotic treatment, often only to see the inflammation flare up once antibiotic are dismissed.

## Material and Methods:

We present our initial experience with 6 patients (5 men and 1 woman, mean age 67 years) presenting a clinical confirmed osteomyelitis of the metatarsal head (Cierny-Mader Stage 1xIII, 4xIV). The patients were treated with limited resection of metatarsal the head, microbiologic sample and filling of the remaining metatarsal canal by means of an absorbable antibiotic loaded bone graft substitute, packing an absorbable antibiotic sponge (Gentamycin) in place of the metatarsal head and direct skin closure. All patients had an orthosis avoiding forefoot weight bearing during the first month, but allowing them to walk normally. Follow up took place on a weekly rhythm during the first month, every fortnight during the second month and after this once a month. The follow up period extended from 4 to 180 days (mean follow up 85 days).

## Results:

None of the treated 6 patients needed a second look operation. 1 patient presented a wound healing disturbance. Due to the type of resorbable implant used, some oozing of transparent liquid during the first 2-6 weeks may present and is to be considered normal.

## Conclusion:

This new method presents a valid alternative. It is associated with good early clinical and radiographic outcomes.



Pre OP    Post OP    4 Weeks    6 Weeks    12 Weeks