ARTICLE IN REVIEW:

Salvage of a failed ankle arthroplasty using ViviGen®

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TITLE: Use of Living Cellular Bone Matrix for Treating a Failed Ankle Arthroplasty: An Abbreviated Technique and Case Study

AUTHORS: Roukis TS.

STUDY DESIGN: Case report

RESULTS: In this case study, a 73-year-old female presented with failure of two previous total ankle replacement procedures. The patient had multiple comorbidities, including obesity, pulmonary hypertension, chronic obstructive pulmonary disease (COPD), and a history of tobacco use. The patient was in significant pain, with a VAS score of 10. An arthrodesis salvage procedure was performed 18 months after the failed revision procedure. Ten cc of ViviGen, in combination with a femoral head allograft, were implanted into the defect site. Fusion was achieved by 12 weeks post-operative, and the patient was weight bearing by 5 months post-operative. The patient was satisfied with the outcomes and reported significant improvements in her pain. This study demonstrates the successful salvage of a twice-failed total ankle arthroplasty using ViviGen.

Fusion achieved by 12 weeks:

The allograft implants — ViviGen cellular bone matrix and a femoral head graft — were fused to the native talus and calcaneus by 12 weeks and to the native tibia by 6 months post-operative.

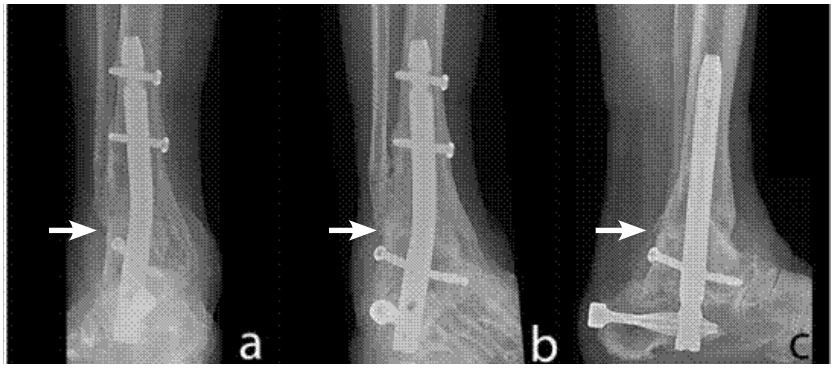
Pain reduction and patient satisfaction:

Significant improvements in pre-operative pain, with a reduced VAS score to 0 in the hindfoot/ankle. Patient was weight-bearing at 5 months post-operative and completely satisfied with the outcomes as of the last follow-up at 23 months post-operative.

Salvage of failed ankle arthroplasty using ViviGen:

ViviGen, combined with a femoral head allograft, enabled successful salvage of a twice-failed ankle arthroplasty.

Complete fusion achieved at 23 months post-operative



23-month post-operative anterior-posterior (A) mortise (B) and lateral (C) weight-bearing ankle radiographs demonstrating mature osseous union of the femoral head allograft to the adjacent tibia, medial malleolus, calcaneus and talar remnant (arrows).

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