

ARTICLE IN REVIEW:

Ankle and foot arthrodesis using ViviGen®

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TITLE: A New Approach to Ankle and Foot Arthrodesis Procedures Using a Living Cellular Bone Matrix: A Case Series.

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STUDY DESIGN: Case series

RESULTS: With the growing number of foot and ankle arthrodesis procedures performed in the United States, new approaches are needed to reduce the rate of non- or delayed unions and promote high-quality fusion of bone. This case series presents the use of ViviGen in four different types of foot and ankle procedures: ankle arthrodesis, double arthrodesis of the hindfoot, tibiototalcaneal arthrodesis, and modified Lapidus to correct hypermobility of the first tarsal-metatarsal joint. All patients demonstrated fusion within 7.5 to 10 weeks postoperative and were weight bearing within 2 to 3 months. The patients reported no postoperative complications and were satisfied with the outcomes. This study demonstrates that ViviGen may be an effective approach for achieving fusion in multiple types of foot and ankle procedures.

Fusion achieved using ViviGen:

All patients achieved fusion within 7.5 to 10 weeks and were weight bearing within 2 to 3 months.

No complications:

No complications were reported in any of the cases with a follow up time ranging from 8 to 20 months.

Effective approach for foot and ankle:

The clinical outcomes from this study support ViviGen as an effective approach for achieving fusion in multiple types of foot and ankle procedures.

Preoperative and postoperative radiographs showing complete fusion



Preoperative

Left: (A) Preoperative anterior-posterior, (B) mortise, and lateral (C) weight bearing ankle radiographs demonstrating end-stage ankle, subtalar and midtarsal degenerative joint disease, secondary to complex clubfoot deformity and subsequent surgeries.



20 months Postoperative

Right: (A) postoperative 20-month anterior-posterior, (B) mortise, and lateral (C) weight bearing ankle radiographs demonstrating complete osseous bridging across the ankle and subtalar joint arthrodesis sites as well as mature osseous integration of the fibula against the tibia, talus and calcaneus.

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