

Case study: The use of Vitoss BA Bone Graft and AxSOS 3 Distal Anterolateral Tibia Plate in a Pilon Fracture.

A review by Dr. Kenneth Koval, MD

Patient history:

Patient is a 50 year old male complaining of pain and deformity of the left leg after falling from a height at work. The patient is otherwise healthy.

Assessment:

On examination, the patient had a deformity of the left leg with tenderness over the left leg and ankle. The skin was not disrupted and he was neurovascularly intact. Radiographs (1A and 1B) and CT scans (2A and

2B) demonstrated a pilon fracture. It was determined that the patient would be treated with temporizing external fixation followed by definitive internal fixation once skin conditions permitted.



Figure 1A: AP leg



Figure 1B: AP leg



Figure 2A: CT leg



Figure 2B: CT leg

Procedure/treatment:

The patient was taken to surgery for an ankle spanning external fixator (Figures 3A and 3B) followed by internal fixation at 2 weeks using an AxSOS 3 Distal

Anterolateral Tibia Plate (Figure 4A and 4B). Vitoss BA bone graft substitute was used to augment the internal fixation due to the nature of the fracture.



Figure 3A: AP leg



Figure 3B: Lateral leg



Figure 4A: AP leg



Figure 4B: Lateral leg

Post-operative clinical outcome:

The leg was splinted and transitioned to a removable boot at 2 weeks. The patient was kept nonweightbearing on the left lower extremity for 12 weeks, but allowed active and passive range of ankle motion. He began weight-bearing at 12 weeks.

Follow-up:

Patient was seen at 3 months (Figure 5A and 5B), 6 months (Figure 6A and 6B), and 11 months (Figure 7A and 7B). The fracture healed uneventfully and the patient was ambulating without pain.

Conclusion:

This case illustrates the safe and effective use of traditional internal fixation in conjunction with Vitoss BA bone graft substitute in a pilon fracture.



Figure 5A: 3 months AP leg



Figure 5B: 3 months lateral leg



Figure 6A: 6 months AP leg



Figure 6B: 6 months lateral leg



Figure 7A: 11 months AP leg



Figure 7B: 11 months lateral leg

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