Calcaneal Fractures
Bruce J. Sangeorzan, MD

We performed a prospective observational trial of outcomes of treatment for isolated tongue-type fractures of the os calcis to determine whether a small incision approach could reduce complication rates and length of stay without reduction of clinical outcomes.

Methods: Isolated tongue type os calcis fractures were treated by open reduction through an extensile approach or C-arm guided reduction and screw fixation through small incisions. Treatment was determined by the surgeon on call the day of presentation to a Level 1 Trauma center. We measured length of stay and clinical outcome. Outcome was measured by the MFA and AOFAS as well as by chart review and radiographic measures of reduction quality.

Results; There were 29 patients in the extensile group and 19 in the small incision group. There was no difference in mechanism, age gender, sponsor or Boehlers angle before or after surgery. There was no difference in rate of complications, or secondary operations. The small incision group had less pain, a shorter length of stay, improved mobility at 6 and 12 months, reduced dysfunction at 6 and 12 months, and improved motion at all time periods. The extensile group had a higher number of reductions that were anatomic. By three years after surgery, the difference in outcomes, though trending to better results in the small incision group, was no longer statistically significant.

Conclusions; in the short term, small incision technique shows improved functional outcomes when compared to the extensile approach. However, longer follow up will be needed to determine whether the improved outcome is sustained.