Intramedullary Fixation of Distal Fibular Fractures in the Geriatric Patient: A Case Report
Amanda Kamery DPM, PGY-1; Kaitlyn Ward DPM, PGY-2; Abdulaziz Kimawi DPM; Craig Clifford DPM, AACFAS
Franciscan Foot & Ankle Institute, Federal Way, WA

Statement of Purpose
Intramedullary rod fixation is presented as a viable treatment option for distal fibular fractures in the geriatric population. This technique leads to a reduction in wound complications, hardware irritation, procedure time and need for subsequent surgeries as seen with traditional open reduction internal fixation (ORIF).

Literature Review
Geriatric patients are at an increased risk for sustaining ankle fractures due to increased fall rate and decreased bone density. Surgical repair for such injuries is often complex, due to the standard large incision and relatively bulky fixation, which is necessary in the geriatric patient due to their generally poor bone stock.¹ This traditional form of fixation carries a complication rate of up to 30%.² Additionally, wound healing complications and hardware irritation is more common in this population due to a poor soft tissue envelope with wound infection rates ranging from 26-40%.³ Often, subsequent surgeries are necessary to remove hardware or to perform wound debridement's.⁴ As it is well documented that surgical morbidity increases in this population, it is important to utilize techniques and fixation methods that limit subsequent encounters. In this case report, we present intramedullary fixation for distal fibular fractures as a viable option for the geriatric population.

Case Report
The patient is a 94 year old male who presented 5 days after a fall with a Weber B, slightly comminuted, left distal fibular fracture. (Figure 1) Due to the unstable nature and slight displacement of the fracture, surgical intervention with an intramedullary fibular rod was chosen. Intraoperatively, excellent anatomic reduction was noted after placement of the rod and one syndesmotic screw. (Figure 2)

At 2 weeks postoperatively, the posterior splint and skin staples were removed. The patient transitioned to protected heel touch weight-bearing for 4 weeks. He resumed regular activity and normal shoe wear at 6 weeks postoperatively. There were no wound healing complications or hardware irritation noted throughout the postoperative course. At 12 months follow up, patient reported no ankle pain or limitations in activities of daily living. (Figures 3a-b)

Analysis & Discussion
Treatment of distal fibular fractures in geriatric patients have an increased risk for postoperative complications which can lead to wound healing issues and subsequent surgeries. It is important to utilize techniques and fixation methods that limit subsequent encounters in order to decrease surgical morbidity in this cohort. The intramedullary fibular rod is an excellent alternative to traditional ORIF. Our case example demonstrates an ideal patient for this technique, including successful anatomic realignment and uneventful postoperative course.

References