The Management of Ankle Fractures in Diabetics: Do Surgeon Preferences in Regard to Treatment Correlate with Clinical Recommendations?

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Disclosures

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- Andrew Rosenbaum, MD
  - My disclosure is in the final AOFAS Program Book. I have no potential conflicts with this presentation.

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Introduction

- Ankle fractures in diabetics can be treated with a variety of techniques.
- However, specific indications for each treatment are not currently well defined and often surgeon dependent.
- Current guidelines provide valuable, but generalized evidence-based recommendations, and fail to identify optimal fracture-dependent fixation strategies. (Wukich and Kline 2008)
- As such, we polled members of the American Orthopaedic Foot and Ankle Society (AOFAS) regarding their preferred management of different types of ankle fractures in this patient population, hoping to identify any trends in treatment.
Methods

- Web-based questionnaires were emailed to the active members of the AOFAS.
- The questions, based on three clinical scenarios involving diabetics presenting with ankle fractures, addressed treatment preference, need for supplemental fixation, and weight-bearing status.
- One hundred ninety-nine respondents completed the survey (23%).
Results

Case 1

- Nondisplaced bimalleolar fracture in a 57-year-old female with diabetic neuropathy
- Preferred Treatment: Closed reduction and casting (74%), No supplemental fixation (96%), 8-12 week period of non-weight-bearing (67%)
Results: Cases 2 & 3


Case 3: Bimalleolar fracture-dislocation in a 70-year-old male with diabetic neuropathy.
Results: Cases 2 & 3
Continued

Case 2
- No one preferred fixation
- Supplemental fixation was deemed unnecessary (93%)
- 8-12 week period of non-weight-bearing recommended (57%)

Case 3
- No one preferred fixation
- Supplemental fixation was unnecessary (80%)
- 8-12 week period of non-weight-bearing recommended (69%)
Discussion

- Ankle fractures in diabetics are becoming more common with the increase in diabetes worldwide.
- The significant risk of complications in this patient population has made treating these injuries difficult.
  - Diabetics have significant increases in in-hospital mortality, postoperative complications, length of stay, rate of non-routine discharge, and total hospital charge. (Ganesh et al. 2005)
The findings in our study are consistent with both recent literature and the clinical guidelines:

- Open reduction and internal fixation was appropriately selected by the majority of respondents when indicated, but with great variation in regard to preferred fixation.
- Supplemental fixation was rarely chosen.
- Prolonged periods of non-weight-bearing recommended by the majority of respondents.
Conclusions

- AOFAS member practices are in sync with the evidence-based clinical recommendations.

- However, further research must be done to determine the most advantageous, fracture-specific, fixation techniques.

References