Variations in the Management of Zone 2 5th Metatarsal Fractures Based on Physician Specialty

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INTRODUCTION: There is a wide variation in the management of acute Zone 2 5th metatarsal (MT) base fractures. The purpose of this study was to quantify these differences and evaluate the effect of treating physician specialty.
METHODS: This was a retrospective cohort study of patients with acute Zone 2 5th MT fractures who presented to a single large, urban, academic medical center between December 2012 and April 2022. Zone 2 was defined as the region of the 5th MT base bordered by the 4th and 5th MT articulation on the oblique radiographic view. Logistic regression was used to evaluate the odds of undergoing surgical treatment based on provider specialty.
RESULTS: A total of 633 patients presented with Zone 2 fractures during the study period. Some 40.6% of patients initially presented to the ED, 36.3% to an urgent care (UC) center, and 23.1% directly to the office. Ultimately, 57.2% of patients were treated by orthopaedic surgeons, 39.6% by podiatrists, and 3.2% by primary care physicians. For patients treated nonsurgically, the management plan significantly differed by treating specialty. Compared to podiatrists, patients treated by orthopaedic surgeons were more likely to be treated in a hard sole shoe (30.8% versus 7.6%, $p < 0.001$) and less likely to be treated using a CAM boot (57.3% versus 76.3%, $p < 0.001$). Similarly, patients treated by orthopaedic surgeons were more likely to be made WBAT compared to patients treated by podiatrists (71.8% versus 42.0%, $p < 0.001$).

Overall, 2.5% of patients with Zone 2 metatarsal fractures were treated surgically. 0.5% of patients treated by orthopaedic surgeons underwent surgery compared to 6.1% of patients treated by podiatrists ($p = 0.001$). Furthermore, when controlling for age, sex, and time between injury and initial presentation to the office, the likelihood of undergoing surgical treatment was still significantly greater when being treated by a podiatrist (OR = 16.5, $p = 0.009$).
DISCUSSION AND CONCLUSION: There is considerable heterogeneity among the treatment strategies for Zone 2 proximal 5th MT fractures. Compared to podiatrists, orthopaedic surgeons are less likely to treat patients surgically and more likely to allow early weight-bearing.