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“Trying Your Hand: A Review of Management of Traumatic Hand Injuries (THI) at a Level 1 Trauma Center”

Background: Traumatic hand injuries (THI) can reduce a patient’s ability to perform daily activities and significantly alter their quality of life. Although hand injuries are common presentations to Emergency Departments (ED) across the United States, research on hand injuries and best practices remains limited. The objective of this study was to examine current practice patients with THI in order to develop evidence-based guidelines to further improve clinical outcomes.

Methods: A retrospective chart review of patients who presented to a Level 1 trauma center with THI was performed from April 2022 to April 2023. Variables collected included: age, gender, race, height, weight, BMI, hospital admittance, mechanism of injury (MOI), admit service, outside hospital (OSH) transfer status, diagnosed nerve injury, hospital length of stay (days), ED length of stay (hours), ED disposition, surgical intervention, and in-hospital mortality. Descriptive analyses were performed.

Results: Of the 315 patients included in the study, 79% identified as male, 44% were African American, and had a median age of 38 years (IQR 29, 52.5). In regard to mechanism of injury, 61% were blunt. Transfers from OSH comprised 28% of patients. A majority of the patients (65%, n=205/315) were admitted into hospital and 41% (n=129/315) underwent surgical intervention of their THI by hand surgery.

Conclusion: Results from this study showed the breadth of hand injuries managed at a Level 1 trauma center over a one-year period. With a majority of patients being admitted into hospital care, and over a quarter of patients coming from an OSH, this highlights the complexity of THI and the potential need for interventions by appropriately trained hand surgeons. Future multi-center studies are needed to develop best practice guidelines for patients presenting with THI.