

Injury Patterns Associated with Electronic Scooter Crashes: An Institutional Observational Study



Andrew D. Rickelmann, M.S., Tuan M. Nguyen, M.D., Michael T. Martyak, M.D.
Eastern Virginia Medical School, Department of Surgery

Introduction

With the rising popularity of electronic scooters, an increase in trauma and injuries related to these scooters have been observed. We sought to characterize electronic scooter injury patterns at our institution.

Methods

Single-center, retrospective review of patients evaluated by the trauma service at Sentara Norfolk General Hospital with documented mechanism of injury associated with electronic scooters from January 2018 to January 2022.

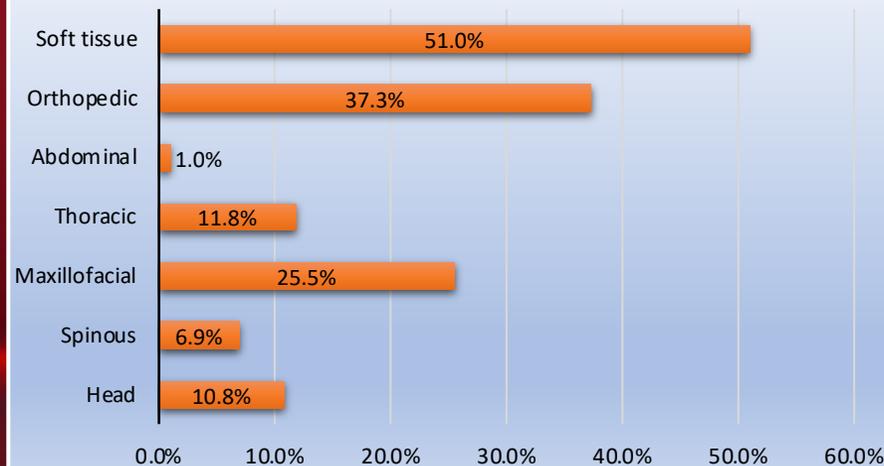
Number of Electronic Scooter Injuries



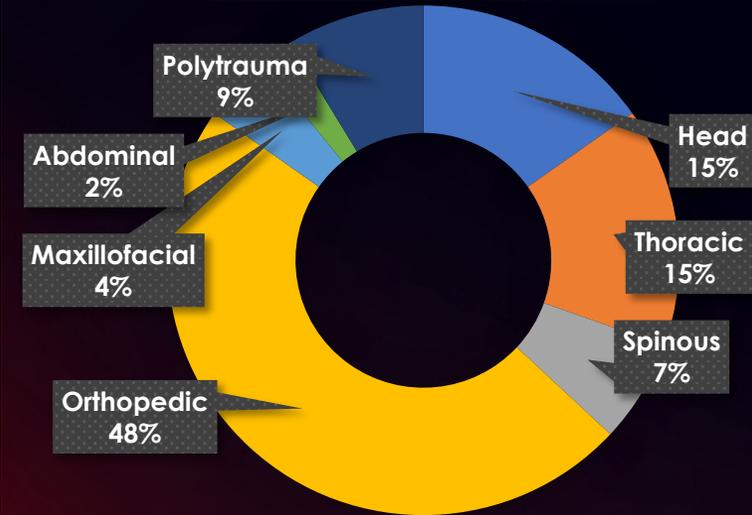
Results

- 102 patients – 78% male, 69% adults (age 25-64y)
- 45.1% of patients admitted with average LOS = 3.9 days
- 57.9% of orthopedic injuries admitted
- 30% required operative intervention
- EtOH use did not affect rate of admission ($p = 0.10$) or surgery ($p = 0.97$)

Injury Patterns



Reason for Admission



Conclusions

- Soft tissue and orthopedic injuries were most common
- More than half of orthopedic injuries were admitted, with almost 2/3 requiring surgical fixation
- EtOH levels did not affect rate of admission or need for surgery
- Further research can help inform future safety regulations

