

Infectious Complications Following Pediatric Lawn Mower Injury: A Case Series

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Background

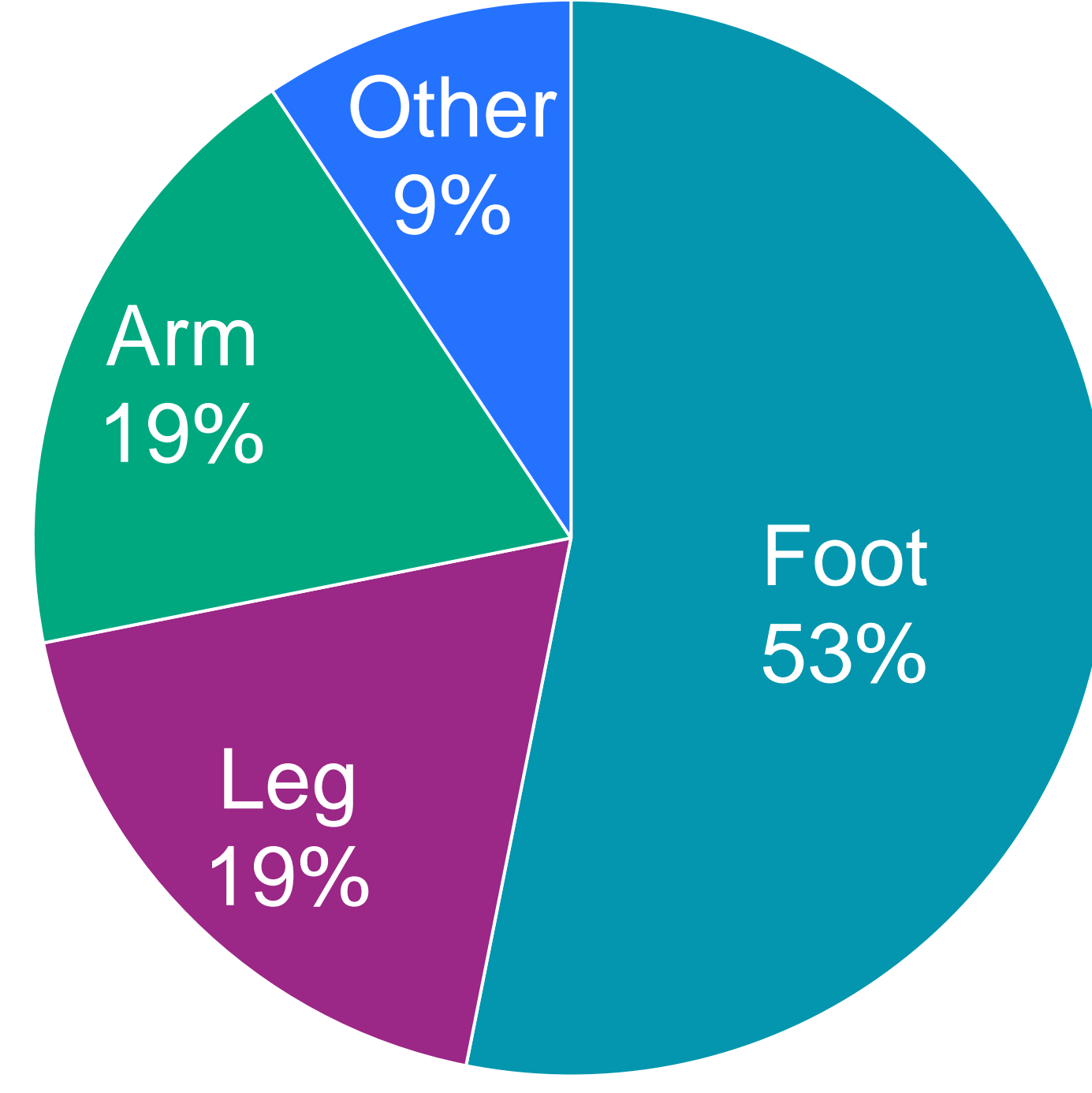
According to the National Electronic Injury Surveillance System, there are an estimated 9,400 riding lawn mower injuries in the United States in pediatric patients per year. Previous case series report a 7-12.5% infection rate after injury. We report our experience of lawn mower injury-related infections over a 4-year period.

Methods

Cases of lawn mower injury at our center were identified by the ICD-10 code W28.XXXA for contact with a powered lawn mower between 2017-2020. Patient demographics, injury background, microbial results, and antimicrobial use were collected via manual chart review.

Infection after the initial injury as defined as growth of organisms from a wound culture collected more than 48 hours after the initial injury and debridement.

Injury Type

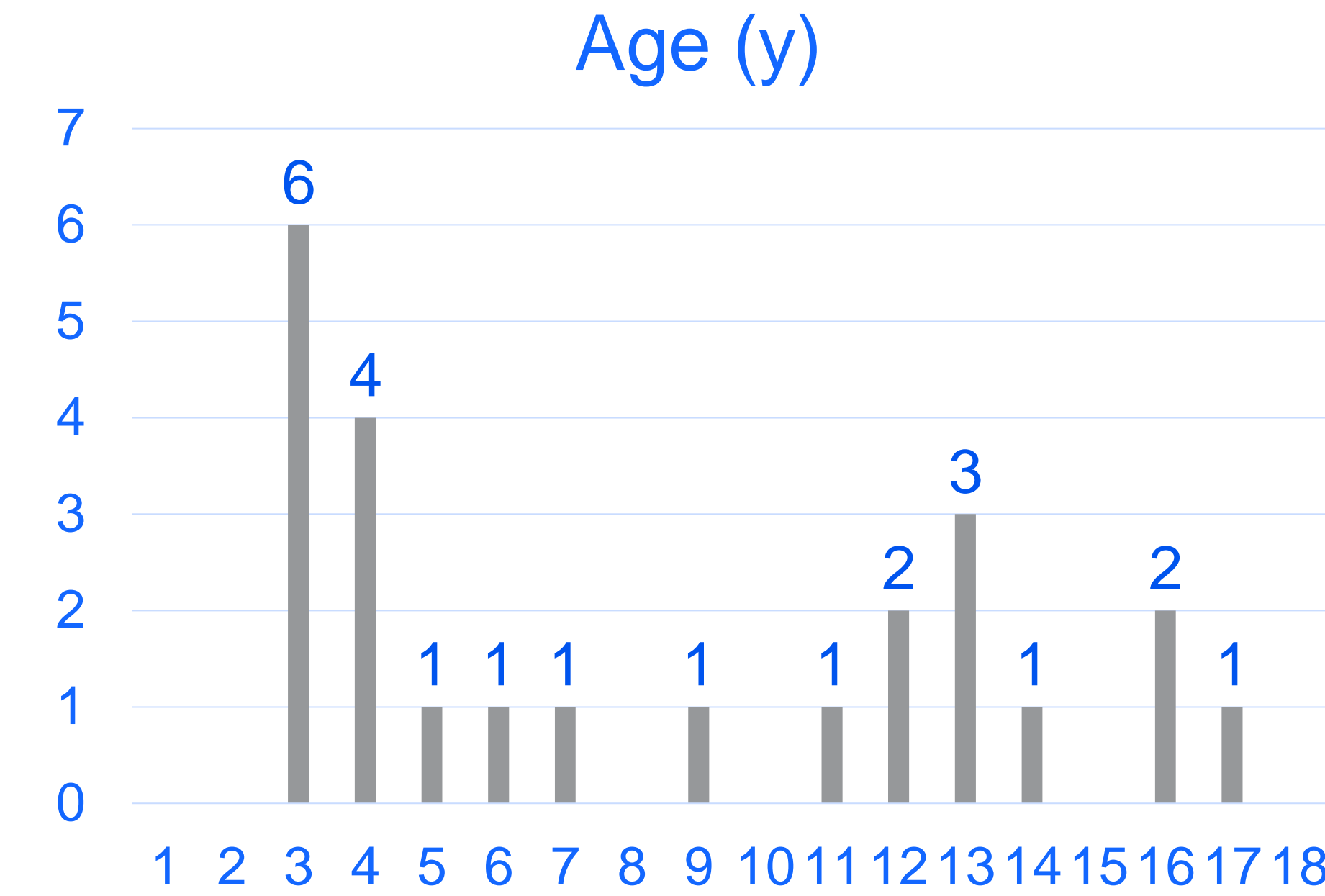


Pediatric lawn mower injuries resulted in ongoing infection in 16% of cases.

Ongoing infections were polymicrobial and often uncommon pathogens.

Empiric Antibiotics

- Piperacillin/tazobactam 11 (46%)
- Ampicillin/sulbactam 8 (33%)
- Cefazolin 6 (25%)
- Vancomycin 1 (4%)



Results

From the four patients with infection after initial debridement or amputation, pathogens included:

- *Staphylococcus aureus*
- Coagulase negative *Staphylococcus*
- *Bacillus* species
- *Aeromonas*
- *Enterobacter cloacae*
- *Serratia marcescens*
- *Pseudomonas aeruginosa*
- *Stenotrophomonas*
- *Prevotella*
- *Myroides odartus*
- *Sphingomonas*
- *Candida albicans*
- *Rhizopus*
- *Trichosporon*

Conclusion

Infections after lawn mower injuries are infrequent with early, aggressive surgical debridement. However, infections following lawn mower injuries are frequently polymicrobial and involve a wide variety of pathogens. Obtaining repeat cultures during subsequent surgical debridements can be useful to track persistent growth and identify new and uncommon pathogens.

