Variation in Documentation of Pediatric Supracondylar Humerus Fractures
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INTRODUCTION

• Supracondylar humerus fractures (SCHF) are the most common pediatric elbow fracture.
• Children can be difficult to examine and many may have associated neurovascular injuries that can alter timing of treatment.
• Purpose: To assess adequacy and accuracy of documentation regarding neurovascular injuries.

RESULTS

Sample Size:
• 20 patients, including three patients with associated nerve palsies (two AIN and one radial nerve palsy).
• In all cases, the nerve palsy was not recognized by the ED physicians or the orthopaedic resident(s) prior to the orthopaedic attending’s evaluation.

Incomplete Motor Exam Documentation:
• In patients with a nerve palsy, motor documentation continued to be incomplete and/or the subsequent resident note failed to document a nerve palsy in >50% of notes even after attending documentation of the nerve palsy.
• Incomplete motor exam documentation occurred in 97% of ED notes.
• There was no correlation between motor exam documentation and year of orthopaedic residency training.

Improvement of Documentation with Increased Patient Age:
• Documentation by orthopaedic residents was significantly improved as patients increased in age (p=0.046).
• Documentation was complete in 90% of patients six years or older.
• Odds of Correctly Identifying Nerve Palsy
  • There was no correlation between improved motor documentation and correctly identifying a nerve palsy (odds ratio=0.88, p=0.43).

CONCLUSIONS

• Inadequate or incorrect documentation may occur at any step of the evaluation process and may persist despite appropriate documentation by an attending surgeon.
• Motor Exam Documentation: Motor exam documentation improved with patient age and reached 90% for patients six and older, implying that barriers exist to appropriate neurologic examination in young children.
• Education Development: Improved education of emergency department physicians and orthopaedic residents is important to provide specific and age-appropriate neurologic examinations in young children with skeletal trauma.
• Proper documentation is necessary to improve recognition and monitoring of neurologic status in pediatric patients with supracondylar humerus fractures.