



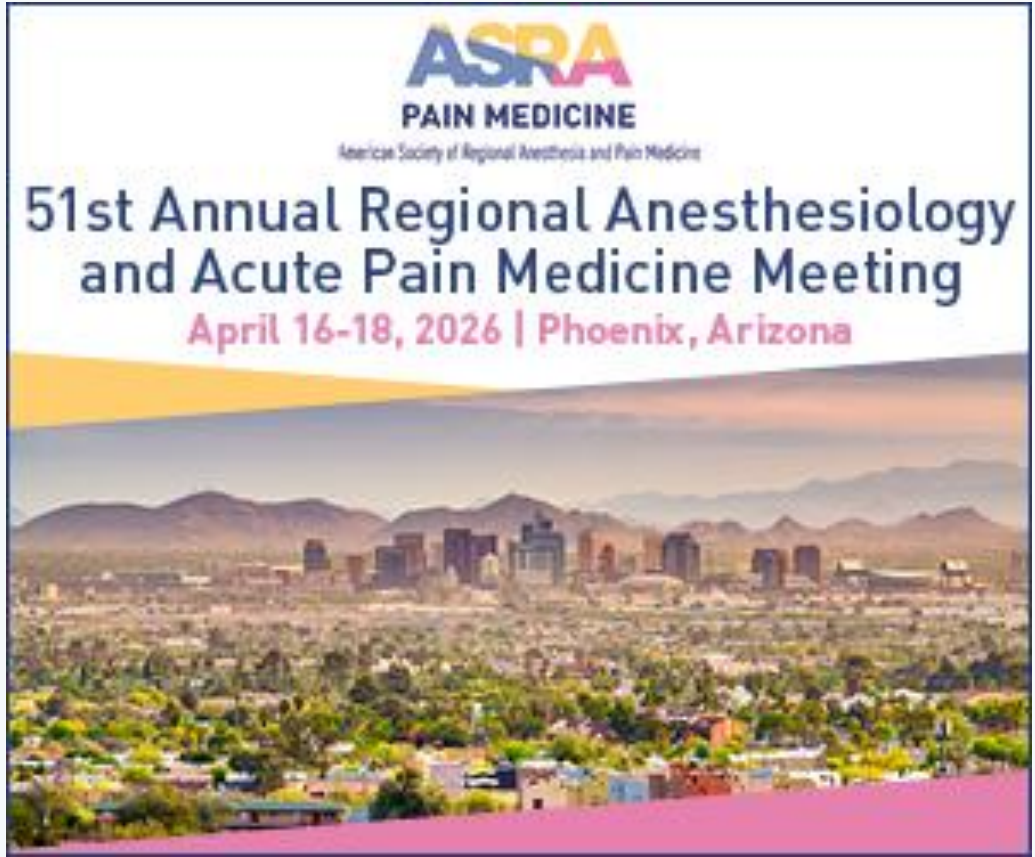
New Kids on the Block: Regional Anesthesia for Lower Extremity Procedures in Pediatric Charcot-Marie-Tooth Disease

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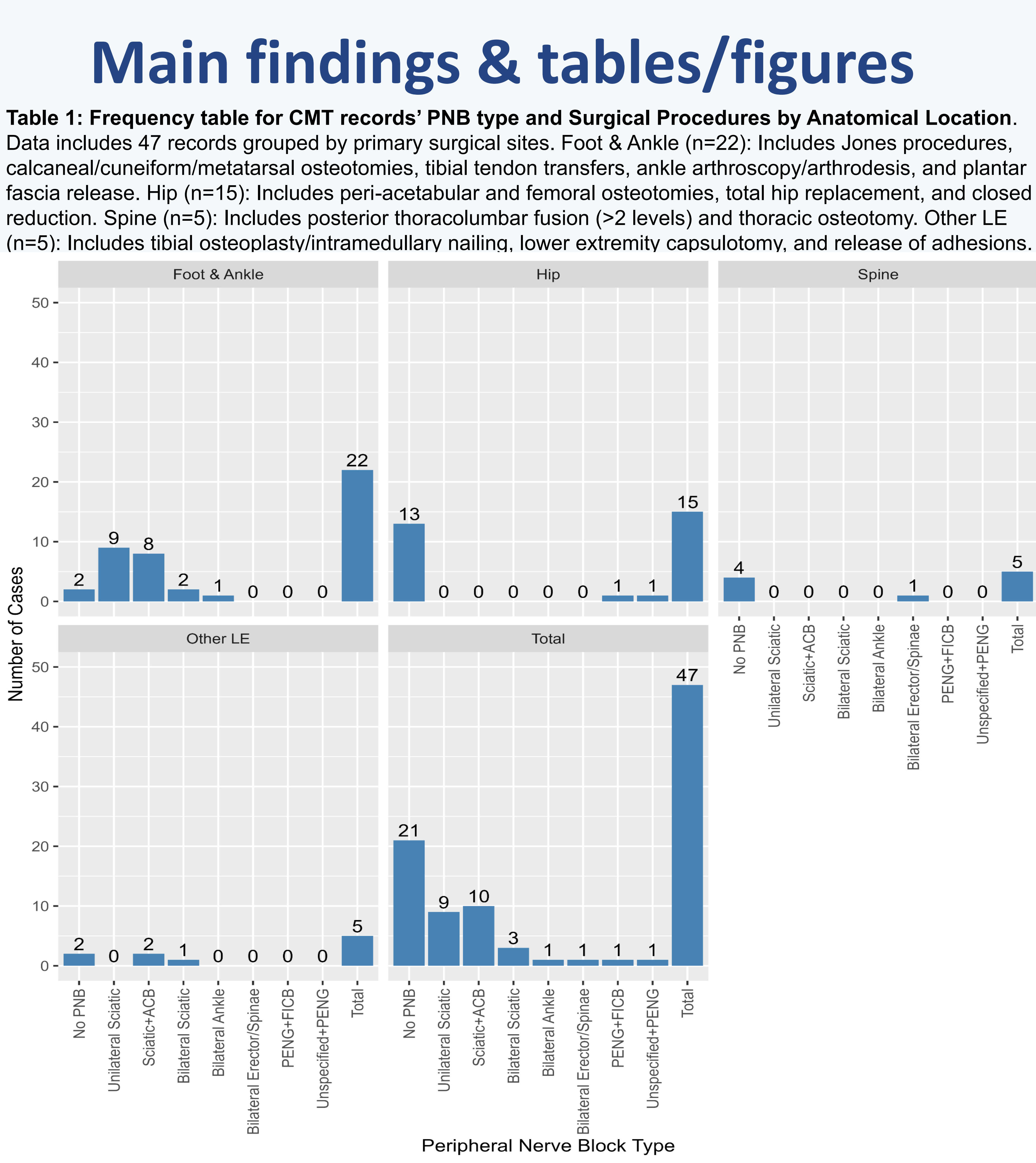


INTRODUCTION

- Charcot-Marie-Tooth (CMT) causes progressive peripheral neuropathy.
- Children with CMT often require orthopedic surgery.^{1,2}
- Regional anesthesia remains controversial in CMT.
- The “double-hit” hypothesis suggests increased nerve injury risk.
- Recent data report no new deficits in 96% of patients.¹
- This study reviews neuraxial and peripheral block use in CMT.

METHODS

- IRB approval was obtained (IRB#2024-1639).
- We identified cases from January 2016 to October 2025.
- Patients were under 18 years at time of surgery.
- CMT was identified using ICD-10 code G60.0.
- We collected demographics, ASA status, and procedure details.
- Anesthesia type, nerve blocks, and duration were recorded.
- Descriptive statistics were used for analysis.



RESULTS

- 22,607 records yielded 28 CMT patients and 47 surgeries.**
- Median age was 15.3 years [13.9-16.4]; 59% were male.
- Most patients were ASA II (82%).
- Peripheral nerve blocks (PNB) were used in 55% of cases.
- PNB use was similar in repeat and primary surgeries.
- Neuraxial anesthesia was used in **74% of lower extremity cases.**
- General anesthesia was required for **all spine procedures.**
- PNB utilization was **91% in foot and ankle surgeries.**
- Common blocks included popliteal sciatic and sciatic/adductor canal.
- Mean procedure time was **237.5 minutes [161.8-307.3]**; Surgical length of stay averaged **2.2 days [1.9-3.4]**.

DISCUSSION

- Regional anesthesia protocols (neuraxial + PNB) were safely maintained in pediatric CMT patients.
- Neuraxial anesthesia remained the primary technique for lower extremity procedures.
- Repeat regional anesthesia use suggests clinician confidence and acceptable safety**
- Block choice was **procedure-specific**, with distal procedures favoring sciatic-based techniques
- ICD-10-based identification may underestimate the true burden of CMT.
- Multi-institutional studies are needed to validate safety and standardize protocols.**
- Future work should **compare anesthetic outcomes between CMT and non-CMT patients**

References →

