[PR1-112] A Descriptive Analysis of Continuous Perineural Catheters in Infants, Toddlers, and Adolescents: Shedding light on the Pediatric Regional Anesthesia Network (PRAN) database.

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Introduction:
While attempts at mainstreaming the use of regional anesthesia in the appropriate pediatric patient have made significant progress, the concern for safety and efficacy among anesthesiology practitioners, surgeons, and parents, not to mention our patients persists. The Pediatric Regional Anesthesia Network (PRAN) database is a multi-center initiative that aims to highlight the various practice patterns, risks, and complications in regional anesthetics in infants and children(1). Our aim in this study was to perform an interim descriptive analysis of the PRAN data pertaining to the peripheral and neuraxial catheter placements from Ann & Robert Lurie Children's Hospital of Chicago (LCH) over the last six years.

Methods:
We interrogated the PRAN database for any peripheral or neuraxial catheter placements submitted by LCH since April 2007 through July 2013 and completed a descriptive statistical analysis using Excel 2010 and SAS software.

Results:
Since PRAN's inception, there have been a total 11,457 perineural catheters placed from all participating sites between April 2007 through July 30, 2013. LCH has submitted information on 557 peripheral nerve and neuraxial catheters ranging over all pediatric ages and American Society of Anesthesiologists (ASA) physical status classes 1 through 4. A total of 440 (79%) catheters were neuraxial and 117 (21%) were peripheral/truncal. Of the neuraxial catheters, 154 (35%) were placed through the caudal approach versus a combined 286 (65%) lumbar and thoracic epidurals. Of the peripheral nerve catheters, there were a total of 91 (78%) lower-extremity catheters, 8 (7%) upper-extremity catheters, and 13 (11%) truncal catheters, with the remainder of catheters being unspecified. Mean age of patients was 9.3 years with standard deviation of 5.6 years and range of <1 year to 18 years old. The overall complication rate was 3% (n=17) with the most common complication being catheter-related problems (n=5, e.g. dislodgement) followed by failed blocks (n=4), and inadequate post-operative analgesia (n=3). The other complications were adverse reactions (n=1), abandoned block (n=2), and other (n=2).

Conclusions:
Placement and management of nerve catheters, both neuraxial and peripheral/truncal catheters, is a safe technique for use in a wide range of pediatric patients undergoing a vast array of surgical procedures. Complication rates are low with no patients suffering long-term sequelae secondary to any catheter-related issues. Neuraxial techniques still predominate pediatric regional anesthesia, though with additional prospective trials, comparative efficacy of particular catheters for specific surgical procedures can be better elucidated.

Reference:
Polaner DM, et al. Anesth Analg. Dec 2012;Vol 115(6): p.1353-64.

Catheter Type	n=	Percentage	# of Complications
Neuraxial	440	79.0%	12
UE	8	1.4%	0
LE	91	16.3%	4
Truncal	13	2.3%	1
Other	5	0.9%	0
