

[PR1-105] Adequate Outpatient Analgesia via Paravertebral Continuous Peripheral Nerve Block Catheter and On-Q Pump

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Introduction

Continuous administration of local anesthetic via peripheral nerve block catheter at the L2 paravertebral level (L2 CPNB) provides satisfactory analgesia for iliac crest bone graft harvesting. We report a case in which we successfully performed a L2 CPNB and discharged the patient home with an On-Q pump.

Case Description

The patient is a 9-year-old boy weighing 29.3 kg with hearing loss, speech delay, and behavior problems scheduled for left cleft alveolus repair with allograft from left iliac crest bone. The same procedure with allograft from the right side was performed six months prior. During both admissions, for postoperative pain control, a L2 CPNB was placed before the procedure with ropivacaine 0.2% at 6 ml/hr started at the end of surgery. Pain scores and medication use are presented in Table 1. During the first admission, the catheter was removed before discharge. His mother reported difficult pain control and a slow recovery at home. For the second admission, he was discharged with a L2 CPNB and On-Q pump, acetaminophen, and oxycodone as needed. He experienced psoas weakness on post-operative day (POD) 1, the infusion was suspended 90 minutes, and then resumed at 4 mL/hr. He was followed by daily telephone call until catheter removal on POD 5. No complications were reported, but on POD 3 he experienced a “tingling sensation” over the left iliac crest bone. The infusion was suspended 30 minutes with complete symptom resolution. At home, NRS pain scores for POD 2-5 were 0/10. Satisfaction score was 10/10. Total oxycodone used was 0.56 mg/kg and acetaminophen 62.2 mg/kg. According to his mother, outpatient L2 CPNB expedited discharge and improved pain control.

Discussion

CPNB for outpatient postoperative analgesia has been described in the pediatric population (1). Additionally, outpatient paravertebral (PVB) CPNB has been described in the adult population (2,3). To our knowledge there have been no published reports of pediatric patients with outpatient PVB CPNB. In our case, L2 CPNB with On-Q pump provided superior outpatient analgesia, faster recovery, and increased satisfaction. This suggests outpatient L2 CPNB can be beneficial as part of a multimodal analgesia strategy in selected pediatric patients with adequate follow up. Further study is needed to determine more widespread application.

References

1. Ganesh, A. Et al. Continuous Peripheral Nerve Blockade for Inpatient and Outpatient Postoperative Analgesia in Children. *Anesth Analg* 2007;105:1234-42.
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Table 1. Postoperative Data During Hospital Stay

	Mean Pain Score	ME mg/kg	Acetaminophen mg/kg
Multimodal Analgesia + Inpatient L2 CPNB	2.3	0.37	134.5
Multimodal Analgesia + Outpatient L2 CPNB	2	0.25	70

Data is for postoperative days 0-2. Mean Pain Score is average score of Wong-Baker Faces Scale and NRS scores obtained by nursing staff. ME is IV morphine equivalents. Acetaminophen is combined IV and PO doses.