



Let's Take Advantage of Mixtures of Bupivacaine or Ropivacaine in Urologic Inguinal and Scrotal Surgery

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Lee et al [1] recently published a very interesting article, which is one of the few reports about the safety of a mixture of bupivacaine in children who underwent urologic inguinal and scrotal surgery. In their study, patients were injected with a mixture of 0.5% bupivacaine and 2% lidocaine (2:1 volume ratio) at the surgical site, just before surgery ended [1]. Hemodynamic and electrocardiographic parameters were measured before local anesthesia, 30 minutes after the administration of local anesthesia, and 60 minutes after administration [1]. The results of their study indicate that no mixture-related adverse events (nausea, vomiting, pruritus, sedation, or respiratory depression) or adverse events related to electrocardiographic parameters (arrhythmias or asystole) were reported in any patients [1]. The observation that even children did not experience side effects suggests that this mixture will be even safer in adults.

In our previous study, we evaluated the efficacy and safety of 0.75% ropivacaine instillation into inguinal

wounds in patients who underwent bilateral microsurgical varicocelectomy [2]. Before repairing the external oblique aponeurosis, 6 mL of 0.75% ropivacaine or 6 mL of normal saline was instilled under the fascia and around the funiculus (spermatic cord) in a randomized and double-blind study design. Visual analogue scale (VAS) pain scores and the Prince Henry Pain Score (PHPS) were used for evaluating the operative sites at 1, 2, 4, and 8 hours and 7 days after surgery [2]. The VAS pain scores and PHPS at the ropivacaine-instilled operative sites were significantly lower than those in the placebo group at 2, 4, and 8 hours after surgery [2]. In general, the instillation of ropivacaine was safe and well tolerated in patients [2]. Bupivacaine is a long-acting amide-based topical anesthetic that is commonly used in clinical practice [3], while ropivacaine is a new amino amide with a structure similar to that of bupivacaine. Bupivacaine and ropivacaine are long-acting local anesthetics. Bupivacaine and ropivacaine produce cutaneous vasoconstriction that restricts

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systemic absorption of the drug and increases its local duration of action [4]. Moreover, these drugs produce an anti-inflammatory effect that may further reduce pain when administered locally [4]. More than 80% of patients undergoing surgery experience acute postoperative pain, and about 75% of them report moderate or severe pain [5]. Likewise, acute postoperative pain is a common complication after open inguinal surgery [2]. The elimination or reduction of postoperative pain following urological inguinal and scrotal surgery can enhance patients' quality of life and allow patients to quickly return to normal daily activities. It is time to take advantage of bupivacaine or ropivacaine mixtures in urologic inguinal and scrotal surgery.

Disclosure

The authors have no potential conflicts of interest to disclose.

Author Contribution

Research conception & design: all authors. Drafting of the manuscript: Shin YS. Critical revision of the manuscript: Shin

YS. Approval of final manuscript: all authors.

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