Efficacy of locally infiltrated levobupivacaine and lidocaine for postoperative analgesia following nasal surgery in the Ambulatory Setting

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Background

In this study, we compared the use of preincisional lidocaine 2% with epinephrine (LA) and levobupivacaine 0.25% plain (LB) for postoperative analgesia in patients undergoing nasal surgery.

Figure: Preincisional infiltration of local anaesthetic before rhinoseptoplasty

Methods

Sixty patients were randomly assigned to receive preincisional local infiltration under general anaesthesia. Group LB received 6 ml levobupivacaine 0.25%, and group LA received epinephrine plus 6 ml lidocaine 2% (add volume injected). Visual analog scale values were recorded 30 min and 1, 3, 6 h postoperatively and the need for rescue analgesic treatment in the first 24 h for all patients was recorded as well.

Results

At 30 min and 1, 3, 6 h postoperatively, visual analog scale values were lower in group LB than in group LA ($P < 0.0001$, $P = 0.002$, $P = 0.023$, and $P < 0.0001$, respectively). The analgesic requirement was significantly lower in group LB when compared with that in group LA ($P = 0.038$).

Group of 60 patients, ASA 1,2 f/m 44/16, average 26 (20-41) yrs			
30 patients LB		30 patients LA	
Rhinoseptoplasty in General Anesthesia with LIA Levobupivacaine 0.25%		Rhinoseptoplasty in General Anesthesia with LIA Lidocaine 2%	
Volumen of preload (0.9%NaCl- ml)		500	500
Local Infiltration Analgesia (LIA) dose of drugs	Levobupivacaine 0.25% & Lidocaine 2% +0,075 mg Adrenaline	15,00 mg	120 mg
	Total analgesia –min	232 (186-258)	56 (42-115)
Postoperative VAS; 30 min (mean,min-max)		0	0
Postoperative VAS; 1h (mean,min-max)		0(0-2)	3(1-4)
Postoperative VAS; 3h (mean,min-max)		0,5(0-2)	4(1-6)
Postoperative VAS; 6h (mean,min-max)		1 (0-2)	3(1-5)

Table: Characteristics of anaesthesia techniques and comparison of postoperative pain level

Conclusion

We conclude that postoperative analgesia in nasal surgery with local infiltration of levobupivacaine added to general anaesthesia was significantly more potent and longer lasting than that achieved by lidocaine plus epinephrine. Conventional non-steroidal anti-inflammatory drugs in combination with paracetamol, administered in time to provide sufficient analgesia in the early recovery phase, are optimal. In addition, weak opioids are recommended for moderate pain, and strong opioids for severe pain, on request.

References

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