

Randomized controlled trial on the efficacy of bilateral superficial cervical plexus block in thyroidectomy

Abstract

Background and objective: As thyroid surgery is being performed as an ambulatory procedure, recent studies concerning post thyroidectomy analgesia have focused on regional techniques such as bilateral superficial cervical plexus block (BSCP) and bilateral combined superficial and deep cervical plexus block. But, data regarding the efficacy of BSCP are controversial. Hence we compared the efficacy of BSCP with 0.25% bupivacaine with and without clonidine in thyroidectomy, as preventative analgesia.

Methods: Patients (n = 60) undergoing thyroidectomy were randomized into 3 groups (n = 20 each) to receive BSCP using 15 mL of 0.25% bupivacaine (group B) or 0.25% bupivacaine with 1 µg/kg clonidine (group BC) or 0.9% normal saline (group S) on each side after induction. Intraoperative (fentanyl) and postoperative (morphine) analgesic requirements were assessed. Postoperative pain scores, nausea, vomiting, and sedation were assessed for 24 hours.

Results: Intraoperative fentanyl requirement was significantly lesser in groups B and BC (P = 0.012). Postoperative pain scores were significantly lower in group BC (compared to S) at 2 (P = 0.002), 4 (P = 0.016), and 8 (P = 0.012) hours. First analgesic requirement time (min) was significantly higher in groups B and BC (P = 0.002), and postoperative morphine requirement was significantly lower in groups B and BC (P = 0.001). Incidence of postoperative vomiting was significantly reduced in group BC (P = 0.022).

Conclusion: BSCP with 0.25% bupivacaine with or without clonidine is effective in reducing both intraoperative and postoperative pain and analgesic requirements in thyroidectomy, and adding clonidine to bupivacaine reduces postoperative vomiting.