

A Comparative Study of Morphine and Clonidine as an Adjunct to Ropivacaine in Paravertebral Block for Modified Radical Mastectomy

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Abstract : Background: General Anesthesia is a standard for breast onco-surgery. The issue of postoperative pain and the occurrence of nausea and vomiting has prompted the quest for a superior methodology with fewer complications. Over the recent couple of years, paravertebral block (PVB) has acquired huge fame either in combination with GA or alone for anesthetic management. In this study, we aim to evaluate the efficacy of morphine and clonidine as an adjunct to ropivacaine in a paravertebral block in breast cancer patients undergoing modified radical mastectomy. Methods: In this study, total 90 patients were divided into three groups (30 each) on the basis of computer-generated randomization. Group C (Control): Paravertebral block with 0.25% ropivacaine (19ml) and 1 ml saline; Group M- Paravertebral block with 0.25% ropivacaine(19ml) + 20 microgram/kg body weight morphine; Group N: Paravertebral block with 0.25% ropivacaine(19ml) + 1.0 microgram/kg body weight clonidine. The postoperative pain intensity was recorded using the visual analog scale (VAS) and Sedation was observed by the Ramsay Sedation score (RSS). Results: The VAS was similar at 0hr, 2hr and 4 hr in the postoperative period among all the groups. There was a significant ($p=0.003$) difference in VAS from 6 hr to 20 hr in the postoperative period among the groups. A significant ($p<0.05$) difference was observed among the groups at 8 hr to 20 hr). The first requirement of analgesia was significantly ($p=0.001$) higher in Group N (7.70 ± 1.74) than in Group C (4.43 ± 1.43) and Group M (7.33 ± 2.21). Conclusion: The morphine in the paravertebral block provides better postoperative analgesia. The consumption of rescue analgesia was significantly reduced in the morphine group as compared to the clonidine group. The procedure also proved to be safe as no complication was encountered in the paravertebral block in our study.

Keywords : ropivacaine, morphine, clonidine, paravertebral block

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