In response to: Comparison of paravertebral and interpleural block in patients undergoing modified radical mastectomy

Sir,

We have gone through the above mentioned clinical study by Kundra *et al*.[1] with great interest. It has potentiality to enrich the knowledge about role of regional anesthesia/analgesia in cancer surgical patients. Recently, it has been found that paravertebral block (PVB) in comparison to general anesthesia can reduce cytokine response of breast cancer surgery.[2] Use of sole regional anesthesia technique may even reduce the chance of cancer recurrence.[3] However, we would like to comment about few issues here:

Firstly, the authors did not mention whether any procedure related complications had occurred in any of the study group patients. Both of these techniques can give rise to pneumothorax, which at times may of clinical significance. Horner syndrome has also been reported with PVB. The reported incidence of complications[4] of PVB as follows: Hypotension: 4.6%; vascular puncture: 3.8%; pleural puncture: 1.1%; pneumothorax: 0.5%. Bronchospasm has been reported after interpleural analgesia also.[5]

Secondly, the authors have opined that interpleural block may be ineffective in providing analgesia during axillary lymph node dissection. But whether there were hemodynamic responses in patients belonging to inter pleural blocks group during axillary dissection? Time of requirement of intra-operative fentanyl can also be helpful in this regard.

Thirdly, use of postoperative patient-controlled analgesia would have reflected opioid consumption more accurately. Moreover, the study may not be adequately powered to detect any difference in postoperative opioid consumption also. The authors have estimated sample size of the study by the difference in quality of block and they defined "failed block" on the basis of fentanyl requirement intra-operatively, morphine during first 4 h postoperatively and diclofenac (before the scheduled dose at 6 p.m.). We think that expressing pain as a "binary outcome" does not seem logical.

Authors concluded that reduction in postoperative pain and opioid consumption may be translated in to a reduction of postoperative pulmonary morbidity. However in this study, there was no control group and hence it is impossible to determine whether either study technique actually reduces postoperative opioid consumption in comparison to a multimodal analgesic regimen. Breast surgeries are not considered to be risk factor for postoperative pulmonary complications (POPC) and actual incidence of POPC after breast surgeries is also unknown. Hence, benefits of regional analgesia technique in terms of respiratory morbidity in these patients cannot be determined here. The authors have commented that "Concomitant use of regional blocks can not only help to minimize pain, but also improves the pulmonary function and reduce narcotic requirement during the perioperative period;" however, none of the article cited[6,7] there has made any conclusion regarding pulmonary function.

Despite of a few limitations, we believe that this study will harbinger a new era of clinical research in the field of breast cancer surgeries.

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