Response to the letter for the article: Use of transversus abdominis plane block as an anesthetic technique in a high-risk patient for abdominal wall surgery

Sir,
With great interest, we read the article “transversus abdominis plane (TAP) block for surgical anesthesia—not ideal” by Rao Kadam. The authors have used TAP block in inguinal hernia and epigastric hernia repair in an elective setting. The authors have reported no pain on the surgical incision but encountered patient’s discomfort on hernia sac manipulation. The reason for their surgical anesthesia “not ideal” is most probably related to the incorrect selection of a surgical procedure for TAP block anesthesia.

Our experience and the reported literature suggest the use of TAP block for anterior abdominal wall surgeries. The anatomy of the nerves involved in TAP block involves the anterior rami of the T6 to L1 spinal nerves traveling in the TAP before supplying the skin, muscles, and parietal peritoneum of the anterolateral abdominal wall. These nerve branches communicate widely within the TAP, creating a nerve plexus that is when injected with a local anesthetic, produces a multilevel neural blockade of the anterior hemi thorax from approximately T9 to L1. However, the visceral innervation of the peritoneal cavity remains unaffected by TAP block. This could be the most probable explanation of pain encountered at the hernia sac manipulation and not at the skin incision, as reported by the authors of the above mentioned study.

In contrast to the case reported by Rao Kadam, we used TAP block in a semi emergency situation on the cardiovascular compromised patient. The advantage of using TAP block in a hemodynamically compromised patient is the avoidance of both general and central neuraxial anesthesia, as both techniques cause varying degrees of myocardial depression and vasodilatation, which have a detrimental effect on the sympathetically driven circulation of these compromised patients. As anatomically, sympathetic and somatic innervations are closely related near the neuraxis, and become separated peripherally, therefore, nerve block like TAP block only affects somatic innervation and leave the sympathetic efferent intact.

Ultrasound guided TAP block technique may be an attractive alternative to general anesthesia and central neuraxial technique for abdominal wall surgeries like wounds and abscesses not extending beyond the parietal peritoneum. However, the prospective investigation of this technique is required.

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