Use of Ultrasound Guided Quadratus Lumborum Block for ERAS Protocol Colorectal Surgery: A Case Report

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Enhanced recovery after surgery (ERAS) pathways have been in existence for a while, particularly for colorectal surgery. A variety of multimodal regimes for postoperative pain management are currently being used, including neuraxial analgesia, non steroidal analgesics, narcotics, and TAP block. Given the contraindications, complications, and side effects associated with neuraxial techniques and intravenous narcotics, regional (truncal) blocks are increasingly being employed. Regional anesthesia offers several benefits - fewer contraindications, lower risk of complications, decreased chance of failure, and higher rate of successful performance in the hands of a skilled practitioner. The primary regional block being used is the transversus abdominal plane (TAP) block which has had equivocal effectiveness compared to a neuraxial technique. We present a case of an ERAS protocol laparoscopic lower anterior resection successfully managed mainly with a quadratus lumborum (QL) block for intraop and postoperative analgesia.

Our patient is a 71 year old, 60 kg hypertensive female found to have a colonic mass on colonoscopy. During the preoperative evaluation, the patient was noted to have a diffuse eczematous rash over her arms and back. Given the unknown etiology of the rash, spinal duramorph (current practice at our institution) was avoided. After an unremarkable IV induction consisting of lidocaine 100mg, propofol 150 mg and rocuronium 50 mg, a bilateral ultrasound guided QL block was performed. Anesthesia was maintained with sevoflurane and oxygen/air admixture. Intravenous ketorolac 30 mg and ofirmev 1 g given 30 minutes before the case ended. No narcotics were used. In the PACU, the patient complained of pain rated 6/10 and received IV morphine 2 mg. Once on the ward, patient received an additional IV morphine 2 mg over the next 10 hours. She reached milestones of ERAS, including early nutrition and ambulation, within two days as expected and was subsequently discharged.

TAP block is a component in many ERAS pathways. QL block has been shown to be more effective in controlling postoperative pain compared to the TAP block after cesarean section. There is minimal data regarding abdominal procedures. However, the TAP block has been utilized as part of a multimodal technique along with a nonnarcotic regimen. Although several variants of the QL block exist, in theory potential for spread of local anesthetic exists from T4 to L1, anterior to posterior abdominal wall. In contrast, the TAP block anesthetizes the anterior abdominal wall from T6 to L1. Thus the QL block may more effective for controlling postoperative pain after abdominal surgery. After careful consideration, we opted to use the QL block for our case rather
than the TAP block. This case demonstrates an acceptable alternative and perhaps a superior technique for postoperative pain management as part of an ERAS protocol.

References:
