Providing effective perioperative analgesia with a unilateral Transversus Abdominis Plane (TAP) block in a patient with suspected severe narcotic allergies undergoing a baclofen pump revision

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Case Report

A 47.6 kg patient presented for a baclofen pump revision.
PMH: CP, seizures, scoliosis.
Allergies: IV morphine, fentanyl and hydromorphone all leading to ‘tremors,’ general irritability and hemodynamic instability.

Procedures in other facilities utilized non-narcotic analgesia and surgeon administered local with resultant post-operative pain control issues.

Induction: Nitrous/Oxygen for IV placement, propofol IV, then intubation.

Maintenance: Sevoflurane (ET 2-3%).

Pre-procedure: Ultrasound guided TAP block. With the patient’s significant myotonic state, scoliosis and surgical scarring, the anatomy was somewhat distorted. The appropriate layers were visualized just lateral to the prior incision, and medial to the triangle of Petit. A total of 10 ml of 0.5% ropivacaine plain was injected with incremental aspiration and injection.

Adjuncts: weight-based IV acetaminophen and ketorolac intra-operatively. The surgery was completed without complications, with stable hemodynamic status throughout.

Post-operatively: No additional analgesia was required, and the patient was comfortable. The family was very satisfied with the patient’s pain relief and stated that they will request it for any further baclofen pump revisions.

Recommendations

A TAP block will decrease both intraoperative and postoperative opioid requirements and in many cases may provide analgesia that is effective enough to eliminate the need for opioids

TAP block does not provide full surgical anesthesia for intra-abdominal manipulation, but is much more effective than local infiltration by the surgeon.

Literature shows that a TAP block may provide more effective analgesia, prolong the time to the first request for opioids and lower visual analog scores (VAS) in comparison to local infiltration by the surgeon.

Use of this regional technique is more significant if the patient has relative or absolute contraindications for intravenous narcotic use.

References


14.

Discussion

Regional analgesia is an excellent alternative for patients with relative and/or absolute contraindications to intravenous narcotics for perioperative analgesia.

The TAP block has been used to provide analgesia to the anterior abdominal wall for several different abdominal surgical procedures including: appendectomy, cholecystectomy, cesarean section, and most laparoscopic incisions.

The innervation of the anterior abdominal wall run in a neurovascular plane known as the transverses abdominis plane, located between the internal oblique muscle and the transversus abdominis muscle. Blockade of these nerves can be achieved with a single injection of local anesthetic administered in this plane. Correct identification of the fascial plane can be facilitated by the use of ultrasound guidance.