Efficacy of multimodal analgesia with intrathecal morphine in major abdominal surgery

Pentilas N., Hatzieleutheriou N., Retzios G., Mitas V., Kalakonas S.
Hygeia Hospital, Dept of Anesthesiology, Athens, Greece

Background and Goal of Study: Patients undergoing major abdominal surgery present a challenging postoperative pain management problem. Adequate pain management influence recovery and outcome after major abdominal surgery. There is growing evidence in literature for alternative techniques in pain management, particular in the setting of ERAS protocols. The goal of this study is to evaluate retrospectively the efficacy of a multimodal approach in pain management for major abdominal surgery based on intrathecal injection of morphine.

Materials and methods: Patients (n=117) undergoing major abdominal surgery were enrolled in this study. Types of surgery were, 60 colectomies, 20 pancreatectomies, 12 total gastrectomies, 5 radical nefrectomies, 15 hepatectomies and 5 cases of abdominal masses . All patients had multimodal analgesia consists of :

- 1) an intrathecal injection of 0.5mg of morphine with 35-50µg clonidine and 5 ml of water saline
- 2) wound infiltration with high volume bupivacaine 0.5%+0,5mg Adrenaline+8mg Dexamethazone
- 3) continuous intravenous infusion with morphine 0.5-0.9 mg/h. All patients had general balanced anesthesia consists of propofol/remifentanyl and desflurane.

For all patients, VAS at rest and at coughing, time for first analgesic request, incidence of nausea, vomiting, pruritus, sedation and respiratory depression were assessed.

Results and discussion: All patients were extubated in theatre. VAS score at rest was 0-2 for all patients during the first 24 hours, up to 3 for the next 24 hours and up to 5 for the third day. For the VAS score on coughing results were 2-3, 4-5, 5-6 respectively. Time to first analgesic request (VAS≥4) was 36-48 hours (tramadol 50-100mg iv). Incidence of nausea, vomiting and pruritus were 10%,4%,0% respectively. No patient sedation or respiratory depression occurred. Current literature supports that alternative anaesthetic techniques may be beneficial as part of multimodal analgesia.

Conclusion(s): Intrathecal morphine as part of a complete multimodal pain management protocol can be an effective alternative for pain management in major abdominal surgery allowing individualized tailoring of analgesia to the patients thus facilitating recovery.

References:

M. Hübner at al , Intrathecal analgesia and restrictive perioperative fluid management within enhanced recovery pathway: hemodynamic implications. Journal of the Am. Coll. of Surg. Vol 216 (6):1124-1134 (2013).