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TITLE: Intrathecal morphine injection practice for acute perioperative pain management at a central hospital: A retrospective review

Abstract

Background

Multimodal analgesia has proved to be an effective strategy for managing acute perioperative pain. Neuraxial anaesthesia, including intrathecal morphine injection (ITM), is an important component of multimodal analgesia. This study described the practice of ITM for acute perioperative pain management at Charlotte Maxeke Johannesburg Academic Hospital (CMJAH) over one year.

Methods

A retrospective, contextual, descriptive research design was followed. The study population consisted of the records of ASA I – III patients 18 years and older who received ITM for postoperative analgesia at CMJAH between 1 January and 31 December 2017. The patients were divided into Group A (received ≤150 mcg ITM) and Group B (received >150 mcg ITM).

Results

In 2017, 131 (2.3%) out of 5 613 general, orthopaedic, vascular and urogynaecology surgery patients received ITM. Group A included 86 (65.6%) and group B 45 (34.4%) records of patients. The mean (SD) dose of ITM was 163.2 (44.1) mcg. ITM was used in combination with bupivacaine in 75 (56.3%) patients with a mean (SD) dose of 8 (3.6) mg in the total sample and 8.2 (3.7) mg for Group A and 7.4 (3.4) mg for Group B. Additional intraoperative analgesia included fentanyl, sufentanil, ketamine, morphine and intravenous paracetamol. Postoperatively, patient-controlled analgesia (PCA) using morphine was used in 12 (9.9%) of patients. The most common non-PCA postoperative pain strategy was a combination of oral tramadol and paracetamol. Of the 121 patients for whom postoperative data were recorded, 30 (24.8%) experienced side effects.

Conclusion

In this study, as a routine practise all patients who received ITM were sent to a high dependency area postoperatively for monitoring. This may have led to the underuse of ITM. The doses of ITM used were within the recommended safe range recommended by the South African Acute Pain Guidelines. The postoperative analgesia side effects experienced by patients were mild and manageable in an appropriately staffed and equipped general ward.