151813 - INTRATHECAL MORPHINE VS. LOCAL INFILTRATION ANALGESIA FOR TOTAL KNEE AND HIP ARTHROPLASTIES

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INTRODUCTION
Postoperative pain is significant following total hip (THA) and knee arthroplasty (TKA). Spinal anesthesia is commonly used with the addition of intrathecal (IT) morphine to prolong the analgesic effect. However, this additive may result in adverse effects. Alternatively, the Local Infiltration Analgesia (LIA) technique uses local anesthetics, NSAIDs and epinephrine, injected periarticularly during surgery. The aim of this study was to compare whether IT morphine or LIA provides better analgesia with fewer side effects after total hip or knee arthroplasty.

METHODS
We performed a quality assurance project involving a retrospective chart review of total hip and knee arthroplasties between November 2014 and February 2015 at two different local centres. Exemption from ethics review was obtained from our REB. Each centre used a different pathway for postoperative pain management, either IT or LIA. The IT group received spinal anesthesia with intrathecal morphine and oxycontin CR protocol, whereas the LIA group received spinal anesthesia plus a standardized injection of epinephrine 0.5mg, ketorolac 10.5mg and Ropivacaine 0.2% (200mg), in a total volume of 100mL infiltrated periarticularly plus a modified oxycontin protocol postoperatively. Pain scores at rest, postoperative narcotic requirements, PONV and antiemetic use were recorded across specific time intervals from surgical skin incision (T = 0). Ability to complete physiotherapy and time to discharge were also recorded. Statistical tests were completed using SPSS 19.0.
RESULTS
109 charts were reviewed: 57 patients received IT (28 TKA, 29 THA) and 52 patients received LIA (26 TKA, 26 THA). No consistent difference in pain scores was found for TKA patients, with the exception of higher pain the LIA group at the 24-hour postoperative time-point (LIA =5.39, IT=3.57, p= 0.007). For THA patients, the only significant difference in pain scores was at 6 hours postoperatively (LIA=3.92, IT=2.24, p=0.014). Significantly greater PONV was found in the TKA-IT group compared to TKA-LIA between 0-16 hours (64% vs. 31%, p= 0.012), and more antiemetic use was noted in TKA-IT. In both surgical groups, there was no significant difference in ability to complete physiotherapy or hospital length of stay when comparing IT or LIA.

CONCLUSION
Pain scores were similar between LIA and IT groups at all time points (0-96h), except higher scores in the LIA group at 6 hours (THA) and at 24 hours (TKA) postoperatively. Increased PONV in the IT group may be the result of IT morphine or higher doses of oxycontin CR used at this centre. Although not statistically significant, increased PONV in the IT group was associated with decreased attendance of physiotherapy on postoperative day 1 for TKA patients. LIA appears to yield largely similar pain control to IT, but results in less PONV.

References: