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Peri-operative analgesia for third degree perineal tear repairs

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Introduction

Perineal injury involving the anal sphincter occurs in 2.9% of births in the UK necessitating repair in an operating theatre.[1] Spinal anaesthesia is commonly undertaken, however there is little consensus regarding the use of intrathecal opioids for post-operative analgesia in this setting. Intrathecal opioids can prolong post-operative analgesia and potentially reduce the requirement for oral opioids, however patients may experience side-effects such as nausea, pruritus and acute urinary retention.[2] We conducted this study to investigate local practice and to establish if intrathecal opioid use influenced post-operative analgesic requirements or led to undesirable side effects.

Methods

Approval was gained from the local clinical audit and effectiveness department. All third degree tear repairs performed under spinal anaesthesia were identified over a three-month period in a district general hospital. Data was collected retrospectively from patients' notes regarding the spinal regimen, intra-operative requirements for supplemental analgesia or conversion to general anaesthesia, post-operative analgesic requirements and the occurrence of side-effects. Potential associations were assessed for significance using Fisher's Exact Test.

Results

Thirty-two patients having repair of a third degree tear under spinal anaesthesia were identified. All patients receiving hyperbaric 0.5% bupivacaine with a medium volume of 2.2 mL (IQR 0.25 [range 1.8-2.8]). 69% (n=22) of patients did not receive an opioid as part of their spinal anaesthetic, 25% (n=8) received diamorphine (300 µg) and 6% (n=2) received fentanyl (20 µg). All patients were pain free during the procedure and none required supplemental analgesia or conversion to general anaesthesia.

Two patients required opioid analgesia post-operatively. One had received intrathecal diamorphine and one had received an opioid-free spinal. Six patients experienced pruritus and two experienced nausea and vomiting post-operatively, all of whom had received diamorphine ($P<0.001$ and $P=0.06$, respectively). No patients required re-catheterisation following removal of the urinary catheter.

Discussion

All patients were adequately anaesthetised and post-operative opioid use was low in patients receiving an intrathecal opioid and in patients receiving an opioid-free spinal anaesthetic. Patients receiving intrathecal diamorphine experienced significantly more side-effects, with an incidence of pruritus and post-operative nausea and vomiting comparable to previous studies.[3] On this basis we would advise against the routine use of intrathecal diamorphine for repair of third degree perineal tears under spinal anaesthesia.

References

1. RCOG. The management of third- and fourth-degree perineal tears. Green-top Guideline no. 29, 2015. https://www.rcog.org.uk/globalassets/documents/guidelines/gtg -29.pdf
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3. S Saravanan, A Robinson, A Qayoum Dar et al. Minimum dose of intrathecal diamorphine required to prevent intraoperative supplementation of spinal anaesthesia for Caesarean section. British Journal of Anaesthesia 2003; 91 (3): 368-72