

**LAPAROTOMIES UNDER LUMBAR SPINAL ANAESTHESIA: A FEASIBILITY STUDY**

G. Kateregga<sup>1,\*</sup>, J. K. Kiwanuka<sup>1</sup>, F. Bajunirwe<sup>2</sup>, S. S. Ttendo<sup>1</sup>

<sup>1</sup>Anaesthesia and Critical care, <sup>2</sup>Community Health, Mbarara University of Science and Technology, Mbarara, Uganda

**Background & Objectives:** Laparotomies are normally performed under general anaesthesia (GA). Inadequate human resource, inconsistencies in drug supplies coupled with inadequacies in the available equipment in low resource settings limit availability and safety of general anaesthesia. Regional anaesthesia techniques especially spinal anaesthesia has successfully been used for abdominal laparoscopic surgery. We conducted a prospective descriptive study to evaluate the feasibility, safety, surgeon and patient satisfaction when performing laparotomies under lumbar spinal anaesthesia at Mbarara Regional Referral Hospital (MRRH).

**Materials & Methods:** Twenty one ASA I to III patients undergoing laparotomies received a lumbar spinal anaesthetic using 2.5-3.5 ml of hyperbaric bupivacaine 5 mgml<sup>-1</sup> mixed with 0.5-1ml of morphine 200µgml<sup>-1</sup>. All patients were placed in the 30 - 40° trendelenberg position after the spinal injection aiming for a T<sub>4</sub> sensory blockade prior to the start of surgery. Other drugs were only given to manage patient anxiety, nausea, hypotension or pruritus in the perioperative period. The patients were monitored and their vitals recorded intra-operatively. Postoperative follow-up was limited to 48 hours to assess for pain, satisfaction and complications.

**Results:** The spinal anaesthetic was performed easily in all patients without any complications. The block was effective for surgery in all patients but one was converted to GA due to persistent shoulder pain. Abdominal discomfort was observed especially at abdominal lavage and was promptly treated with small ketamine boluses. All patients developed hypotension (MAP <60 mmHg) within the first 35 minutes of induction of spinal anaesthesia. This was readily managed with intravenous fluids (mean±SD 1452.4ml±444.5ml) and an adrenaline infusion (116±48.9µg). 2 patients developed pruritus and nausea/vomiting while only 1 developed post-operative urinary retention requiring catheterisation.

**Conclusion:** This study provides preliminary evidence that the lumbar spinal anaesthesia technique can safely be used to perform laparotomies.

**References:**

- van Zundert, A.A.J., Stultiens, G., Jakimowicz, J.J., Peek, D., et al. (2007) Laparoscopic cholecystectomy under segmental thoracic spinal anaesthesia: a feasibility study. *British Journal of Anaesthesia*. 98 (5), 682–686. .
- Kalaivani, V. (2014) Laparoscopic Cholecystectomy Under Spinal Anaesthesia vs. General Anaesthesia: A Prospective Randomised Study. *JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH*. Available from: doi:10.7860/JCDR/2014/9829.4700

**Disclosure of Interest:** None declared

**DOI:** 10.1213/01.ane.0000492879.11489.b6