Egyptian Journal of Anaesthesia (2013) **29**, 97–101

Egyptian Society of Anesthesiologists

Egyptian Journal of Anaesthesia

www.elsevier.com/locate/egja
www.sciencedirect.com

Research Article

A randomized comparative study between selective walking spinal anesthesia and general anesthesia for anorectal surgeries in outpatient settings

Hossam I. Eldesuky [a,*], **Mohamed Ibrahim** [a,1], **Ashraf Ragab** [b,2]

[a] *Department of Anesthesiology, Faculty of Medicine, Zagazig University, Egypt*
[b] *Department of Anesthesiology, Faculty of Medicine, Cairo University, Egypt*

Received 18 September 2012; revised 8 October 2012; accepted 18 November 2012
Available online 27 December 2012

KEYWORDS

Ambulatory;
Anorectal;
Lidocaine;
Selective spinal anesthesia

Abstract *Background:* Spinal anesthesia is gradually increasing in ambulatory setting. The limiting factor to the more widespread use of spinal anesthesia in the outpatient setting refers to the effect of residual block. Selective spinal anesthesia (SSA) with low dose lidocaine was compared with modern general anesthesia (GA) technique in day care anorectal surgeries.
Objective: Our objectives in this study was to compare SSA with propofol and fentanyl based modern GA as regard to 1 – operating conditions 2 – patients' and surgeon's satisfaction, 3 – intraoperative, postoperative adverse events and 4 – recovery profiles in ambulatory anorectal surgeries.
Methods: Prospective randomized clinical study was conducted on 60 patients undergoing elective day case anorectal surgery. The patients were randomly allocated into one of two groups (GA and SSA groups) of 30 patients each. In GA group anesthesia was induced with intravenous fentanyl (2 μg/kg) and propofol (2–3 mg/kg). Airway was secured with I-gel supraglottic airway. Anesthesia was maintained by sevoflurane 1.5–2%, nitrous oxide 60% in oxygen mixture. SSA group patients received spinal anesthesia with lidocaine 20 mg and fentanyl 25 μg to a total volume of 3 ml with

* Corresponding author. Address: P.O. box 100, Tabouk, Saudi Arabia. Tel.: +20 1000232244, +966540688155; fax: +20 552344442.
E-mail addresses: eldesuky@yahoo.com.sg (H.I. Eldesuky), mibrahim72@windowslive.com (M. Ibrahim), aragabm3@hotmail.com (A. Ragab).
[1] Address: Palestine Square/Madina Road, P.O. Box 7692, Jeddah 21472, Jeddah, Saudi Arabia. Tel.: +20 1223777755, +966 565842048, +966 2 667 5000, +966 2 669 4896.
[2] Address: Palestine Square/Madina Road, P.O. Box 7692, Jeddah 21472, Jeddah, Saudi Arabia. Tel.: +966 507200280, +966 2 667 5000, +966 2 669 4896.

Peer review under responsibility of Egyptian Society of Anesthesiologists.

ELSEVIER **Production and hosting by Elsevier**

1110-1849 © 2012 Egyptian Society of Anesthesiologists. Production and hosting by Elsevier B.V. Open access under CC BY-NC-ND license.
http://dx.doi.org/10.1016/j.egja.2012.11.004

sterile water for injection. Intraoperative, postoperative and home adverse events, time to ambulate, time to home discharge, patients' and surgeon's satisfactions were statistically compared between both groups.

Results: Both anesthetic techniques showed acceptable operating conditions and high rate of patients' satisfaction. Low pain intensity, shorter time to ambulate and home discharge in SSA compared to GA with a p value < 0.001. Intraoperative hemodynamic stability was reported in both groups. No major postoperative or home adverse events in both groups.

Conclusions: SSA with low dose lidocaine may be suitable alternative and competitive for modern GA in ambulatory anorectal surgery.

© 2012 Egyptian Society of Anesthesiologists. Production and hosting by Elsevier B.V.
Open access under CC BY-NC-ND license.

1. Introduction

Surgery of anal canal, such as for anal fistula and fissures need preservation of anal sphincter tone which may lead to the patient being maintained in a light plan of general anesthesia (GA) resulting in complications as laryngospasm and tachycardia. Conventional spinal anesthesia causes totally relaxed sphincter which interferes with sphincter manipulation, prolong the recovery time, ambulation and delays home discharge that is not suitable for ambulatory concept. The challenge today is to use spinal anesthesia which should be suitable, with rapid recovery and early home discharge with minimal postoperative or no side effects to be competed with modern ambulatory GA [1]. There are many techniques for selective spinal anesthesia (SSA) by different anesthetics to achieve sensory block suitable for surgery with minimal motor block [2]. Few studies used SSA lidocaine and fentanyl in anorectal surgeries. Walking spinal technique can be taken into wider practice [3]. Few and mild postoperative side effects allow SSA (low doses lidocaine and fentanyl) to be one of the best techniques for ambulatory anesthesia if compared with other techniques of SSA and with GA [4]. It is essential for the anesthetist to provide the best anesthetic care for ambulatory surgery to facilitate rapid return to daily work [2]. Newer anesthetic techniques may allow rapid recovery and the recovery phase I can be completed in OR and patients can bypass the post anesthesia care unit (PACU) as what is known as fast-tracking anesthesia [5]. The objective of this study is to compare the efficacy of 1 cc lidocaine 2% (20 mg) and fentanyl 25 μg in 0.5 ml intrathecally with propofol–fentanyl general anesthesia in terms of hemodynamic stability, surgical conditions and ability to bypass the post anesthetic care unit (PACU), earlier discharge home, patients' and surgeon's satisfaction.

2. Patients and methods

Prospective randomized clinical study from January 2009 to January 2010, in 120-bedded general hospital in Qatif area Kingdom of Saudi Arabia (KSA). Approval of hospital committee for research and ethics and written informed consent from each patient were obtained. Patients were scheduled for elective anorectal surgeries as anal fissure, anal fistula and hemorrhoidectomy. The study enrolled 60 patients were ASA physical status I and II, aged 20–50 years, and from both sex. Patients with any contraindications for spinal anesthesia as (coagulopathy, localized infection, and neurological diseases) were excluded from study. Patients were divided into two equal groups (GA and SSA groups) of 30 patients each. Patients in both groups received no premedication. GA group was assigned to receive fentanyl, propofol and inhalational sevoflurane and nitrous oxide and no neuromuscular blockade (NMB). SSA group received spinal anesthesia with lidocaine and fentanyl. Intravenous (I.V.) infusion of 500 ml lactated Ringer's solution was started on arrival to operating room (OR). Standard monitoring was started; heart rate (HR), mean arterial pressure (MAP), and hemoglobin oxygen saturation (SpO_2) were recorded at 2-minute (min) intervals during surgery. All operations were done by the same surgeon. Patients in GA group were induced by fentanyl 2 μg/kg IV and 2–3 mg/kg propofol IV. Airway was secured by I-gel supraglottic airway. Anesthesia was maintained by sevoflurane 1.5–2% and nitrous oxide 60% in oxygen mixture with no NMB. Fentanyl increments were given IV if needed during the operation. Sevoflurane and nitrous oxide were discontinued at the end of surgery and I-gel was removed. HR, MAP and SpO_2 were recorded before transferring the patients and on arrival to PACU. Patients of SSA group received subarachnoid block under complete aseptic precautions and skin infiltration by lidocaine 1% 2 ml. Block was performed in sitting position, mid line approach at L4-5 intervertebral space. A 25 gauge, Quincke–Babcock spinal needle was used and the bevel of the needle oriented caudally. Spinal solution was injected intrathecally over 10 s. Spinal solution was prepared using 1 cc lidocaine 2% (20 mg) and fentanyl 25 μg in 0.5 ml then completed to 3 ml by sterile water for injection. The solution was hypobaric and had specific gravity 1.002. Patients remained sitting for 1 min then supine with head down for 6–8 min to allow caudal spread of solution then patients were put in lithotomy position, with head down and pelvis up. Sensory level and motor block were assessed using pinprick and modified Bromage scale (0 = full movement, 1 = movement of knees only, 2 = movement of ankles only, and 3 = no movement), respectively, 5 and 10 min after lidocaine injection and at the end of surgery. The response to surgical stimulation was evaluated by Ordinal scale (none, mild, and severe). The assessments of operating conditions were done by the same surgeon using (poor, good, and excellent). Hypotension and bradycardia were defined as decrease more than 20% of baseline. All patients bypassed phase I recovery unit to phase II recovery unit where patients received oxygen by face mask if SpO_2 less than 92%. Postoperative HR, MAP, and SpO_2 were recorded. Pain was assessed by visual analog scale (VAS) (0 = no pain, and 10 = worse pain). Nausea, vomiting, Pruritus, urine retention, orientation to time, person and place, back, leg or buttock pain and any surgical bleeding were re-

Download English Version:

https://daneshyari.com/en/article/2756459

Download Persian Version:

https://daneshyari.com/article/2756459

Daneshyari.com