

Postoperative Pain Assessment and Comparison in Patients of Haemorrhoidectomy under Saddle Spinal Block and Combined Saddle with Caudal Epidural

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Abstract: Pain after haemorrhoidectomy in immediate postoperative hours is severe and extreme at times and needs relief. Various drugs local, oral and parenteral are used to subdue pain with varying success. **Design:** 100 ASA I and II patients both male and female aged between 20 - 70 years were randomly chosen for group I (50 patients) group II (50 patients) of the study. Group I patients were operated for open haemorrhoidectomy under spinal saddle block and group II patients under combined saddle block and caudal epidural fentanyl. **Results:** VAS score assessed at 3 hours after surgery was significantly higher in group I than group II and so was Patient controlled analgesia demand. **Conclusion:** Saddle spinal cord combined with single shot epidural caudally is good and convenient method to provide pain - free postoperative course in open haemorrhoidectomy patients.

Keywords: Saddle, spinal, epidural, haemorrhoidectomy

1. Introduction

Haemorrhoids is common anorectal problem affecting about 4% of general population whereas in India this incidence goes to about 5%. Haemorrhoids presentation decides the treatment modality whether surgery or conservative, dietary and/or sclerotherapy. Surgical procedures like band ligation and excision, both open and close are agreed and accepted benchmark of surgical management. Haemorrhoidectomy, both open and close, is common surgical procedure for treating haemorrhoids grade III and IV patients. All forms of anaesthesia local, general and neuraxial spinal and epidural block are practised to conduct surgery - (1). Saddle block is the choice as this provides analgesia and muscle relaxation with minimal systematic effects - (2).

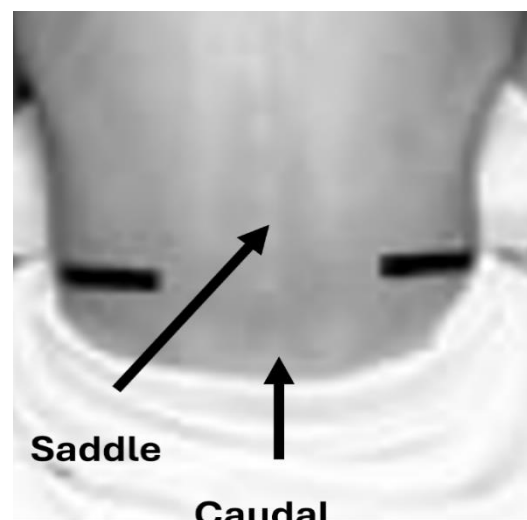
Pain after haemorrhoidectomy is a major concern and could involve about 40% patients at various times in immediate postoperative period. Various drugs, techniques and combinations have been used for alleviating pain after haemorrhoidectomy with varied success - (3). Assessment of pain revealed that pain may present very early in postoperative period and severity can be extreme - (4, 5). We decided to assess pain, its prevalence, timing and severity in haemorrhoidectomy patients in immediate postoperative period by VAS score scale at various intervals in post anaesthesia care and post surgical unit. Informed consent was obtained from all patients. The study was conducted in CCMMC, Durg between period January 2019 and January 2021.

Patients and Method

Having obtained approval from scientific and ethics committee 100 ASA I and II patients aged between 20 and 70 years belonging to either sex admitted between January 2018 and January 2021 for open haemorrhoidectomy were enrolled in this single blind study. They were randomly

allocated to Group I (50) who received saddle spinal block with injection bupivacaine 0.5% (H) and Group II (50) who received saddle block and caudal epidural fentanyl. The sample size calculation based on previous such studies indicated 30 patients with an addition of 10% in each group will be required to compare means of difference between groups by confidence interval 95% and study power 80%. Group I patients received saddle spinal block in sitting position. Group II patients received saddle spinal block and caudal epidural fentanyl in sitting position.

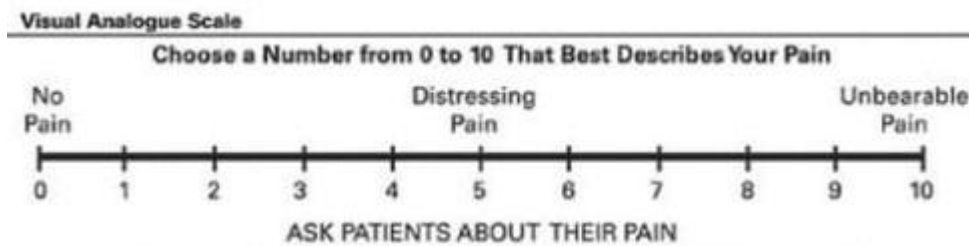
2 ml of Injection bupivacaine (H) was used for saddle block and 50 microgram of injection fentanyl in 20 ml saline was injected caudal epidurally with 20G normal hypodermic needle. Patients continued to sit in sitting position for 5 minutes and then positioned to lithotomy for surgery having ensured anorectal analgesia. All through patients' parameters, Heart rate,



Saddle and Caudal in Sitting Position

systematic blood pressure, PaCO₂ and SpO₂ were monitored. Surgery time was calculated from lithotomy position time to supine position time after completion of surgery.

VAS score scale from 1 to 10 was used at 3 hours in immediate postoperative period to determine pain and its severity. VAS score of 4 or more required analgesic to be given either injection paracetamol or fentanyl where score 0 (zero) meant no pain and patient in complete comfort and score 10 as extreme pain. All patients received metronidazole and ibuprofen in postoperative orders.



2. Results

No statistically significant difference was found in mean age and weight of patients of two groups and were comparable table I

Male and female distribution of patients in two groups was statistically akin table I

Table 1: Showing mean age and weight and sex distribution

Group	Mean Age in years	Mean Weight in kg	Female: Male
Group I (n=50)	42.41 (12.53)	57.11 (08.90)	23: 27
Group II (n=50)	40.17 (16.88)	55.04 (12.89)	24: 26
P value	> 0.05	> 0.05	

Average of various haemodynamic parameters of two groups were also comparable table 2

Table 2: Showing mean haemodynamic parameters.

GROUP	SYSTOLIC BP	DIASTOLIC BP	HEART RATE
GROUP I (n=50)	127.94 (16.4)	77.70 (10.21)	81.90 (16.11)
GROUP II (n=50)	130.54 (17.8)	79.12 (12.11)	83.42 (14.31)
P value	> 0.05	> 0.05	> 0.05

VAS score was assessed by a resident who did not know the group of patient. Average VAS score at 3 hours in postoperative period was 4.2+/- 1.551 in group I and was significantly higher than 1.12+/- 1.334 recorded in group II. 28 (56%) patients in group I complained pain and VAS score 4 or more. So PCA was administered in 56% patients whereas only 6 (12%) patients in group II had VAS score 4 or more. PCA was required in 12% patients in group II. No adverse effects of epidural fentanyl were reported.

group I and 13 patients indicated VAS score of 6+ and had to be injected heavy analgesics. Thus, it is recommended that saddle spinal being good anaesthesia modality as it provides good anaesthesia with good muscle and sphincter relaxation if combined with single shot of epidural fentanyl provides pain relief in the immediate postoperative period too. Technique is easy, painless and no extra time is consumed and is recommended.

3. Discussion

Pain after haemorrhoidectomy is extreme at times and relief is advisable. Pain relief could be local ointment and analgesics. Reversal of spinal effects may precipitate severe pain, passage of flatus, sphincter spasm supplementing intensity of pain. So it is warranted that pain is preempted and measures are taken to prevent pain. In this study patients of group II received epidural fentanyl alongside saddle spinal block in same seating with no needle pain and resulted in significantly lower VAS score 1.12+/- 1.334 vs 4.2+/- 1.551 in group I at 3 hours after surgery. Only 12% patients of group II asked for analgesic whereas 88% patients were comfortable and did not require analgesic supplementation in any form. On the contrary 56% patients recorded VAS score more than 4 and asked for analgesia in

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