



HEMORRHOIDECTOMY UNDER REGIONAL VERSUS LOCAL ANESTHESIA

Anesthesiology

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ABSTRACT

INTRODUCTION: This is a prospective study comparing operative outcomes of hemorrhoidectomy under local anesthesia versus hemorrhoidectomy under spinal anesthesia.

MATERIAL AND METHODS: Two groups of 30 patients of hemorrhoid were created randomly. In one group surgery was done under local anesthesia and in other group surgery was done under spinal anesthesia. Postoperative pain and other complications were compared.

DISCUSSION AND CONCLUSION: Open hemorrhoidectomy can be performed comfortably using local anesthesia. Local anesthesia produces lesser postoperative pain and other complications.

KEYWORDS

Hemorrhoidectomy, Local Anesthesia, Spinal Anesthesia, Perianal Block

INTRODUCTION:

Open haemorrhoidectomy is generally performed under general or regional anaesthesia.¹ However, there is an emerging trend toward performing anorectal surgery in an ambulatory setting utilizing local anesthesia combined with or without intravenous sedation.

Open hemorrhoidectomy under local anesthesia is reported in other studies also.¹⁻³

Several studies showed the safety and efficacy of local anesthesia with or without perianal block for anorectal surgery to facilitate same-day discharge.⁴⁻⁶ In this study we have compared the operative outcomes of hemorrhoidectomy done under local anesthesia with hemorrhoidectomy done under spinal anesthesia.

MATERIAL AND METHODS: This is a prospective study done in RIMS, Ranchi over a period of 1 year (from March 2017 to February 2018).

INCLUSION CRITERIA: Patients of hemorrhoid who come to surgical OPD for surgical treatment.

EXCLUSION CRITERIA: Elderly patients > 60 years old
Pediatric age group
Recurrent cases
Patients with associated co-morbidity which can affect treatment outcome.

Each patient was explained about the treatment and written consent for participation in study was taken from willing patients. A total of 60 patients were included in the study. They were randomly divided in two treatment groups of 30 patients each. While in 30 patients in group SA hemorrhoidectomy was done under spinal anesthesia, in 30 patients in group LA hemorrhoidectomy was done under local anesthesia. Bowel preparation was done in all patients before surgery. In group SA spinal anesthesia was given by standard method and hemorrhoidectomy was done.

In group LA lignocaine 1% with adrenaline was used for local anesthesia. First local infiltration was done in diamond shape around perianal region followed by four quadrant infiltration in intersphincteric plane at 4 points.

After anesthesia, open hemorrhoidectomy was done in both groups in similar fashion. Intraoperatively pain and discomfort to the patient due to inadequate anesthesia was noted. After surgery patients were given IV analgesia for 12 hours and then oral analgesia was prescribed after 12 hours. After 24 hours, sitz bath was started and stable patients were discharged on oral medications.

Post-operative pain was assessed in both the groups using Visual Analogue Scale and a score of 1-10 was given. Pain assessment was done at 30 minutes, 2 hours, 4 hours, 8 hours and 12 hours post-operatively. Post-operative complications if present were also noted.

Patient particulars, details of anesthesia and intra-operative as well as post-operative findings were recorded in a data collection sheet. Statistical analysis was done using IBM SPSS Statistics 23 software.

RESULT:

Sex distribution of study population

In this study 63.3% (38) patients were male while 36.6% (22) patients were female. Out of 38 males 18 were put in SA group and 20 were included in LA group. Out of 22 female patients, 13 were assigned group SA and were put into group LA.

Sex	No. of patients	Total
Male	Group SA: 18	38 (63.3%)
	Group LA: 20	
female	Group SA: 13	22 (36.6%)
	Group LA: 9	

Age distribution of study population

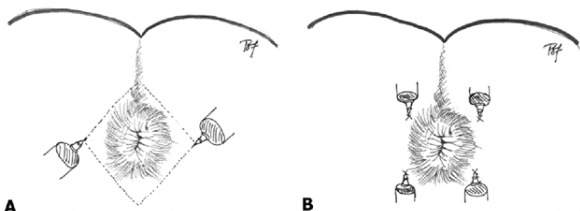
Study population was divided in 5 age groups. While none were younger than 20 years, 11 patients were included in 20-30 years age group, 27 patients were there in 30-40 years age group, 16 were there in 40-50 years age group and only 6 patients were older than 50 years.

Age groups	No. of patients
<20 years	0
20-30 years	11
30-40 years	27
40-50 years	16
>50 years	6

Comparison of postoperative pain in two groups

Pain assessment was done at 30 minutes, 2 hours, 4 hours, 8 hours and 12 hours post-operatively. Median pain score was equal in both the groups except at 2 hour postoperatively and 4 hours postoperatively. At 2 hours pain was significantly less in LA group. At 4 hours pain was less in SA group but the difference was not significant. Mann Whitney U test was used to compare median pain scores.

Median pain score	Group SA	Group LA	Difference (p value)
At 30 minutes	0	0	0.204
At 2 hours	1	2	0.046
At 4 hours	2	1	0.086



At 8 hours	1	1	0.284
At 12 hours	0	0	0.206

Comparison of postoperative complications in two groups

Postoperative urinary retention was seen in 3 cases in SA group and in 1 patient from LA group. Postoperative headache was seen in 2 cases from SA group, back pain was seen in 3 cases from SA group and postoperative hypotension as seen in 2 cases of SA group. No patient in LA group had postoperative headache, back pain or hypotension.

Complication	Group SA	Group LA	Difference (p value)
Urinary retention	3	1	0.3006 (Chi-square test)
Headache	2	0	
Back pain	3	0	
Hypotension	2	0	

DISCUSSION:

Hemorrhoid is caused by the prolapse of anal cushion that may result in bleeding and pain.¹² Hemorrhoidectomy is a fairly painful procedure. Many methods are being tried to reduce pain and discomfort associated with the surgery. Research is also going on to use different methods of anesthesia so that hemorrhoidectomy can be performed in day care basis without compromising the surgical outcome. Many studies use different methods of perianal local anesthesia administration for hemorrhoidectomy.⁴⁻⁸

In our study we have used diamond shaped perianal infiltration of LA with four quadrant perianal block for the procedure.

In this study 38(63.3%) patients were male and 22 (36.6%) patients were female. Most common age group affected in our study was 30-40 years followed by 40-50 years. These results are comparable to results of study by G. G. Ravindranath et al.¹³

When postoperative mean pain score in SA group was compared with LA group it was found that mean pain was comparable in both the groups except at 2nd and 4th hours postoperatively. At 2nd hour mean pain score was significantly lower in LA group and at 4th hour mean pain score was lower in SA group but this difference was not significant.

Post-operative complications like headache backpain and hypotension were not seen in LA group but were present in SA group. Post-operative urinary retention was non-significantly higher in SA group (seen in 3 cases in SA group and in 1 case in LA group, p-value: 0.3006).

CONCLUSION: Hemorrhoidectomy can be done in local anesthesia with perianal block. While this method of anesthesia is associated with lower postoperative complication; post-operative pain is comparable to spinal anesthesia.

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