



## DIATHERMY HAEMORRHOIDECTOMY; UNDER LOCAL ANAESTHESIA

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### INTRODUCTION

Hemorrhoids is health problem since prehistoric time.<sup>1</sup> Hemorrhoids develop from naturally occurring anal cushions within the lower rectum. Commonly there are three of these cushions and classically described as occupying the 3, 7 and 11 O'clock position with the subject in the lithotomy position.<sup>2</sup> Haemorrhoids is a common problem confronted by every practicing surgeon. National data is not available however the magnitude of problem is tremendous as evident by greater than 4% prevalence in United states.<sup>3</sup>

The common symptoms of Haemorrhoidal disease include bleeding, irritation, fullness, prolapse, difficult hygiene and seepage.<sup>4</sup> These symptoms usually, but not always, depend upon

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**ABSTRACT... Objectives:** Hemorrhoids is a common ano-rectal disorder, and haemorrhoidectomy is universally accepted procedure. Haemorrhoidectomy can be carried out under several modes of anesthesia. Local anesthetic produce a loss of sensation and muscle paralysis in a circumscribed area of body by localized effect on peripheral nerve endings. The aim of this study is determine long term and short term outcome of diathermy haemorrhoidectomy under local anesthesia, in term of early recovery, hospital stay, postoperative pain, bleeding and recurrence. **Study Design:** Cross sectional, descriptive case series study. **Period:** 24-02-2014 to 24-02-2015. **Setting:** Department of General Surgery, Liaquat University of Medical and Health Sciences Jamshoro / Hyderabad. **Method:** 50 patients of haemorrhoidectomy. All patients of III and IV degree hemorrhoids, which are fit for surgery were included whereas those patients who had previous anal surgery, co-existing disease i.e. Crohn's disease, chronic diarrhea illness, malignancy of anal region, hyper sensitivity to local anesthetics were excluded from the study. Data was collected and analyzed in SPSS version 20.0. **Results:** A total of 50 patients of haemorrhoidectomy were included. The mean operative time was 15.04 minutes (n = 50). 9(18.0%, n = 50) patients had the complaint of pain, 15(30.0%, n = 50) patients had itching around anus. Postoperatively 9(18.0%, n = 50) patients got pain relief within one week, no post operative bleeding was observed within the one week. Two patients (4.0%, n = 50) had temporary incontinences infection. Only 1(2.0%, n = 50) patient developed anal stenosis within the long term period of one month to 1 year. **Conclusion:** Diathermy hemorrhoidectomy under local anesthesia feasible, safe and well tolerated by our environment and population.

**Key words:** Haemorrhoidectomy, local anaesthesia, diathermy

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the grade of hemorrhoid(s). The Surgical excision of haemorrhoids has been present for centuries but the most popular technique for almost a century is the Milligon-Morgon, described in 1937.<sup>5</sup> These classical technique uses scissors to excise the haemorrhoid leaving a mucosal bridge between each wound to prevent anal stenosis, the wounds are left open to heal by secondary intention. Haemostasis is then secured by use of diathermy. haemorrhoid is dealt with in the same manner; however, well-established skin bridges between each V-shaped segment of excised skin must remain. At the end of the operation, an anal speculum is inserted to be absolutely certain that there is complete haemostasis.

In 1957 Ferguson<sup>6</sup> described "closed technique"

where mucosal edges sutured with aim to improve postoperative pain and accelerate wound healing. Various technical modifications have so far been practiced to decrease postoperative pain and shorten recovery period; that include, lateral internal sphincterectomy, diathermy haemorrhoidectomy and use of anal sphincter relaxants like glycerol trinitrate (GTN) ointment or postoperative use of metronidazole. Although this technology had defenders, none has resulted in decreased postoperative pain enough to gain universal acceptance.<sup>7</sup>

It is hoped that a small number of patients that can lead surgeon, local anesthesia to patients who hemorrhoidectomy offer, as this promotes the presentation of hospital.<sup>8</sup> It is well accepted that the constipation with consequent straining predisposes to hemorrhoids, however it has been shown that diarrhea may also be a risk factor.<sup>9</sup> One of the important causes of Hemorrhoids has been attributed to the wrong posturing as the use of sitting toilets.<sup>10</sup> Obesity, pregnancy, insufficient liquids intake and vitamin E deficiency also plays a part. The haemorrhoidectomy can be performed under different anesthetic alternatives including general anesthesia, spinal anesthesia, laryngeal mask anesthesia (LMA), intravenous general anesthesia (intravenous sedation) combined with local anesthesia, or perianal anesthetics infiltration.<sup>11</sup> Few accessible conservative nonsurgical treatment. Surgical treatment options for choice when conservative treatment has failed or disease.<sup>12</sup> Haemorrhoidectomy under local anesthesia reduced postoperative pain, analgesic requirements, and postoperative complications, and can be performed as day-case procedure. Diathermy haemorrhoidectomy reduced operating time and was equally effective than conventional haemorrhoidectomy in long-term symptom control.<sup>13</sup>

So most patients with advanced degree hemorrhoids or after exhausting their resources into the hands of quacks or present to be reluctant to adequate consultation for the initial stages of their illness, because search of cultural self.<sup>14</sup> The most common issues connected surgical hemorrhoidectomy, are postoperative pain,

bleeding and strictures. Numerous studies on (hemorrhoidectomy open and closed) in Pakistan and abroad, the advantage over the other, very little to choose between them.<sup>15,16</sup>

## MATERIAL AND METHODS

This Cross sectional descriptive case series study was conducted 50 patients of haemorrhoidectomy between 24-02-2014 to 24-02-2015 at the Department of General Surgery, Liaquat University of Medical and Health Sciences Jamshoro/ Hyderabad. All patients of III and IV degree haemorrhoid, which are fit for surgery were included whereas those patients who had previous anal surgery, co-existing disease i.e. Crohn's disease, chronic diarrhea illness, malignancy of anal region, hyper sensitivity to local analgesics were excluded from the study. A detailed relevant clinical history was taken and physical examination was done along the standard lines including general, systemic and local examination.

## Preoperative preparation

Preanaesthetic evaluation was done and a soap water enema was given in the night before and on the morning of the surgery. Patients were kept nil orally from the previous night. Antibiotics were given on the day of surgery, before the procedure. Patients were explained about the effects and complications of the procedure.

## RESULTS

Total 50 patients of hemorrhoids were included based on inclusion criteria. The mean age + SD (range) was 45.2 + 13.2 (18 to 70 years). Most of the patients 19(38.0%, n = 50) were observed in the age group 31 to 40 years, 14(28.0%, n = 50) patients were seen between 20 to 30 years of age while 11(22.0%, n = 50) patients were in the age group of 41 to 50 years and 6(12.0%, n = 50) patients were found in the age > 50 years (Table-I). The mean operative time was 15.04 minutes (n = 50), 26(52.0%, n = 50) patients had the duration of hospital stay up to 2 days, 22(44.0%, n = 50) cases had the duration between 2 to 4 days while only 2(4.0%, n = 50) patients had the duration > 4 days. Out of 50 patients, 33(66.0%) were males and 17(34.0%)

were females. In this study, 9(18.0%, n = 50) patients had the complaint of pain, 15(30.0%, n = 50) patients had itching around anus, 10(20.0%, n = 50) developed diarrhea.

Variable	No. Patients	Percentage
<b>Gender</b>		
Male	33	66%
Female	17	34%
<b>Age</b>		
20-30 years	14	28%
31-40 years	19	38%
41-50 years	11	22%
> 50 years	6	12%
<b>Intensity of pain (n = 50)</b>		
Mild	6	12%
Moderate	0	0
Severe	0	0
<b>Hospital stay</b>		
up to 2 days	26	52%
2 to 4 days	22	44%
> 4 days	02	4%

**Table-I. Demographic Variable**

Symptoms duration was between 5 months to 5 years. The mean duration of first symptom was 1.81 years. Out of 50 patients, 6(12.0%) patients had mild intensity of pain with gripping in nature. According to aggravating factors, 30(60.0%, n = 50) patients complained for hard stool, while 5(10.0%, n = 50) patients had complained long sitting. Relieving factors were observed in all the patients. 35(70.0%, n = 50) patients were relieved by passage of soft stool while 15(30.0%, n = 50) patients got relief by using laxatives.

Postoperatively 9(18.0%, n = 50) patients got pain relief within one week, no post operative bleeding was observed within the one week. Two patients (4.0%, n = 50) had temporary incontinences infection. Only 1(2.0%, n = 50) patient developed anal stenosis within the long term period of one month to 1 year (Table-II).

Variable	No. Patients	Percentage
<b>Short term (up to 1 week)</b>		
Pain	9	18%
Bleeding	0	0%
Temporary incontinence	2	4%
<b>Long term (one month to 1 year)</b>		
Permanent incontinence	0	0%
Reoccurrence	0	0%
Anal stenosis	1	2%

**Table-II. Follow-up visits of the patients (n = 50)**

## DISCUSSION

Local anesthesia (LA) to an operation of hemorrhoids with the aim of controlling pain which usually complicate the procedure<sup>17</sup>. Operation is done under LA there are other priorities. These benefits include early mobilization following discharge from the hospital, a reduction in the overall cost of the process and puts the doctor patient communication during the process.<sup>18</sup> All these benefits are seen more appropriate in the areas where are the majority of our patients at the center belong to low socio-economic status and where a lot of misconceptions about the causes of hemorrhoids often. Seen number of patients in our center are afraid postoperative problems and hence, most decline surgery even when indicated.

Another recent study has shown that pain can be achieved and the use of local anesthesia to process if the patient medically fit and mentally prepared.<sup>19,20</sup> In this study, mean age was 45.2 years and majority of the patients 19(38.0%, n = 50) were between the age group 31 to 40 years. Alalise Ol et al.<sup>17</sup> also reported the mean age 44.73 years and he also observed that majority of patients were between the age group 31 to 40 years in his study which correlates well to this study. Another local study of Afridi N et al.<sup>21</sup> conducted in Peshawar who showed the mean age 48.7 years which is also comparable to this study while in the study of Keshtkaran A et al.<sup>22</sup> the mean age was 40 years so there is no difference of mean age with the other's results among the patients of haemorrhoidectomy.

In this series, the mean operative time was 15.04 minutes (n = 50), this observation is comparable with the local study of Ali M et al.<sup>23</sup> who mentioned operative time 9.2 minutes in his study. This is also done by Jayne DG et al.<sup>24</sup> who revealed that mean operative time was 20 minutes which nearly correlates to this study. The mean duration of hospital stay was 2 days (range 2-4) which is similar to the study of Lai HJ et al.<sup>25</sup> who showed mean duration of hospital stay 2.8 days (range 2-5) in his stay. Our study showed mostly patients (94%) were discharged within 24 hours. However some multicenter study<sup>26</sup> in which 90.3% of patients were discharged home on 1st postoperative day. This observation correlates well with the study Afridi N et al.<sup>21</sup> who reported that 91% patients were discharged home after one day. Most of patients in our study 70.2% resumed their normal activities within 7 days, which is comparable to other studies.<sup>26,27,28</sup>

In this study, patients operated under local anesthesia had less pain, less analgesic requirements, shorter hospital stay, and less postoperative complications. A shorter operating time and less complications was observed. This is comparable with Castellvi J et al.<sup>29</sup> who mentioned the same observations in his study.

## CONCLUSION

This study concluded that diathermy haemorrhoidectomy under local anesthesia is feasible, safe and well tolerated with many short and long term benefits in our environment. It is a good technique and has emerged as an alternative to open haemorrhoidectomy, which is performed in general or spinal anesthesia.




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### AUTHORSHIP AND CONTRIBUTION DECLARATION

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3	Dr. Champa Sushel	Drafting of article	
4	Dr. Ahmed Halepoto		