

# Experience of Open Hemorrhoidectomy without Antibiotic Prophylaxis at PUMHS Nawabshah

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## ABSTRACT

**Objectives:** To determine the effect of not using the prophylactic antibiotics in open Milligan & Morgan Hemorrhoidectomy at PUMHS Nawabshah

**Study Design:** Observational / descriptive study.

**Place and Duration of Study:** This study was at PUMHS (Peoples University of Medical and Health Sciences Nawabshah) in Surgical Unit 1 from July 2014 to July 2016.

**Materials and Methods:** 200 cases with 3<sup>rd</sup> and 4<sup>th</sup> degree hemorrhoids were selected for this study. Patients having other associated an rectal diseases and systemic co-morbid problems were not selected. Data was recorded for demography. Selected cases were underwent open Milligan & Morgan Hemorrhoidectomy under spinal anesthesia. Post-operative complications like pain, bleeding, acute retention of urine, constipation, anal incontinence and infection was recorded during hospital stay and on weekly follow up upto six week. Data was analyzed by using SPSS-24.

**Results:** Among 200 cases 120 were male and 80 are female. Male to Female ratio was 3:2. Mean age was 41 years SD<sup>±</sup>11.4 and a range of (18-80). Mean operating time was 30 minutes. Postoperatively 10% had mild pain, 3% had moderate pain and 1% had sever pain in first 24 to 48 hours. Acute retention of urine was experienced by 8% of the case post-operatively. Mild bleeding in the form of spotting was found in 13% of the cases while 1% had moderate bleeding that required re-packing. 6% of the cases developed temporary constipation. None of the cases developed incontinence. Post-operatively there was no any local(surgery site infection) or systemic infection was observed in all cases.

**Conclusion:** Surgical site infection remains as a nightmare for most of the surgeons and an injudicious use of prophylactic antibiotics is being practiced in this part of world. This study strongly advocates that open Hemorrhoidectomy can safely performed without any antibiotic prophylaxis.

**Key Words:** hemorrhoids, open Hemorrhoidectomy, antibiotic prophylaxis

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## INTRODUCTION

Anal vascular cushions are believed to have some role in anal continence. Hemorrhoids are defined as the symptomatic enlargement and distal displacement of the normal anal cushions.<sup>1</sup> As many patients do not seek medical advice for their symptoms, it is difficult to assess the true incidence of hemorrhoids accurately but it is estimated that approximately half of the population over 50 years of age have experienced hemorrhoid problems.<sup>2</sup> The principle etiological factor of hemorrhoidal disease is yet to establish despite several years of studies. For an appropriate evaluation and

management of hemorrhoidal diseases, it is essential for a clinician to have clear understanding of this disease as many patients with other anorectal problems are inappropriately attributed to hemorrhoids. The commonest presentation of hemorrhoids, rectal bleeding, may be associated with other diseases like ulcerative colitis, crohn's disease, colorectal carcinoma, angiodyplasia and diverticular disease.<sup>3</sup> To treat symptomatic hemorrhoids various modes of treatment have been introduced including photocoagulation, band ligation, injection sclerotherapy, heat coagulation and hemorrhoidectomy.<sup>4</sup> Surgical hemorrhoidectomy is the gold standard procedure for treating hemorrhoidal disease and is one of the most commonly performed anorectal surgical procedure.<sup>5</sup> For last more than hundred years various surgical procedures had been practiced but Milligan Morgan open hemorrhoidectomy and Ferguson's closed hemorrhoidectomy are the most accepted procedures.<sup>6,7</sup> Common post operative complications of Hemorrhoidectomy are pain, urinary retention, bleeding, anal fissure and anal stenosis. Other less complications include anal incontinence, fistula and

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sepsis. In order to prevent surgical site infections prophylactic use of antibiotics inhibits microbial proliferation. More recently, preoperative and postoperative antibiotics have been studied to determine their effect on post operative complications.<sup>8</sup> According to some studies there is no role of prophylactic antibiotics in open Hemorrhoidectomy.<sup>9</sup> Various studies reflect optimal prophylactic strategies, but still there is a need to focus on factors that might provide insights into ways of reducing the burden of surgical site infections in colorectal surgeries.<sup>10</sup> In order to find a more cost-effective use of antimicrobial prophylaxis in anorectal surgery strategies should be developed locally.<sup>11</sup> This study was planned to determine the effect of not using antibiotics in open surgical Hemorrhoidectomy in this less privileged part of the country.

## MATERIALS AND METHODS

This is a descriptive study extending from July 2014 to July 2016 comprising 200 patients who underwent open Milligan and Morgan Hemorrhoidectomy at surgical unit 1 of Peoples University of medical and health sciences Nawabshah.

Pre operative demographic data, mode of admission, grade of hemorrhoids, hepatic viral status, co morbid diseases (chronic liver disease, hypertension, diabetes, ischemic heart diseases, COPD and etc) were evaluated. No age or gender discrimination was observed to select cases for Hemorrhoidectomy. Detailed history, clinical examination including digital rectal examination (DRE) and proctoscopy was done to establish the diagnosis and grading of hemorrhoids. Patients with 3<sup>rd</sup> and 4<sup>th</sup> degree hemorrhoids were considered for Hemorrhoidectomy. Those cases having other associated anorectal diseases like anal fissure, fistulae in ano, per anal abscess, anal stenosis, ano rectal carcinoma, anal incontinence and acute thrombosed piles were not included in this study. Patients with co morbid diseases (chronic liver disease, hypertension, diabetes, ischemic heart diseases, COPD and etc) were also excluded. All patients were investigated for basic routine investigation like complete blood count, blood glucose, urea/creatinine, HBsAg & anti HCV, LFT. Patients above 40 years of age also had chest radiograph and cardiac assessment. Pre-operatively all patients underwent anesthetist assessment. A comprehensive counseling made with the patients and their close relatives and a written consent was taken. All patients were given kleen enema a night before surgery. Consultants having the rank of professor, associate professor and assistant professor and senior registrar were the operating surgeons. All patients underwent spinal anesthesia. On the operating table all patients were assumed in lithotomy position and Miligan Morgan open Hemorrhoidectomy was done.

A lubricated ribbon gauze pack was kept at operated site in anal canal for hemostasis for 24 hours. All operated cases were managed in general ward. Postoperatively patients were kept nil per oral for twelve hours and intravenous fluids were given for 24 hours along with intravenous metacolon and ranitidine. Par enteral analgesics nalbuhine and NSAID were used for 24 to 48 hours. No antibiotics was given to all patients any time pre and post operatively. Anal pack was removed after 24 hours and first sitz bath in warm water was given for local toilet. Post operative wound pain was assessed on mild, moderate and severe pain scale. Post operative hospital stay was recorded in hours. Retention of urine post op bleeding and abdpminal pain was observed and managed.

Almost all patients were discharged in 24 to 48 hours. At discharge from hospital all patients were advised to take sitz baths twice a day, lactulose 30 ml 1 to 2 times a day, tronolane cream for local application and analgesics on demand for two weeks. On their weekly follow up wound pain, bleeding, constipation, diarrhea, surgical site infection were specifically noted and managed at least for 4 to 6 weeks. All patients were encouraged to start their routine daily activities as early as comfortable to them. Statistical package for social sciences(SPSS-24) was used for data analysis.

## RESULTS

200 patients were included in this study that underwent hemorrhoidectomy in surgical unit 1 PUMHS hospital Nawabshah from July 2014 to July 2016. Among those 120 patients were male and 80 were female making a ratio of 3:2. Mean age of the patients was 41 years, SD 11.4 and a range of (18-80).

**Table No.1: Age distribution**

S/no	Age in years	No of patients	Percentage %
1	11-20	6	3%
2	21-30	42	21%
3	31-40	50	25%
4	41-50	74	37%
5	51-60-	22	11.%
6	61-70	3	1.5%
7	71-80	3	1.5%
<b>Total</b>		<b>200</b>	

Among them 6(3%) patients belong to 2<sup>nd</sup> decade, 42(21%) patients belong to 3<sup>rd</sup> decade, 50(25%) patients belong to 4<sup>th</sup> decade, 74(37%) patients belong to 5<sup>th</sup> decade, 22(11%) patients belong to 6<sup>th</sup> decade, 3(1.5%) patients belong to 7<sup>th</sup> decade and 3(1.5%) patient belong to 8<sup>th</sup> decade. Mean operating time was 30 minutes.

Among 200 cases 20(10%) patients experienced mild post operative pain, 6(3%)patients had moderate post operative pain, 2(1%) patients had severe pain and 172(86%) patients had no pain at all in first 24 to 48

hours after surgery. On weekly follow up 195(97.5%) patients had no pain, 4(2%) patients had mild pain and 1(0.5%) patients had moderate pain and none of them had severe post operative wound site pain at home. 172 patients(86%) had no post operative bleeding, 26 patients(13%) had a few spots on perineal packing while 2 patients(1%) had significant bleeding that required re-packing of the wound in the first 24 to 48 hours after surgery during their hospital stay. Mean hospital stay was 36 hours. 16 patients(8%) developed retention of urine on the day of surgery and 10 of them passed urine by conservative measures while 6 patients needed catheterization. After discharge from hospital none of the patients developed any local or systemic sepsis. 12 patients developed constipation during the course of follow up but they were managed conservatively. No evidence of anal incontinence was observed in any patient in this study.

## DISCUSSION

Hemorrhoid is a common clinical problem. Important manifestations of this disease are bleeding per rectum and something coming out of anus. Diagnosis of hemorrhoidal diseases is purely clinical and no specific investigation is required for confirmation. Detailed history and proctoscopy are considered sufficient for diagnosis of hemorrhoids. Clinical history defines the degrees of the hemorrhoids and proctoscopy confirms the presence of hemorrhoids. 1<sup>st</sup> degree hemorrhoids are usually managed conservatively by changing life style and diet modifications. 2<sup>nd</sup> degree hemorrhoids usually do not require hemorrhoidectomy and managed with less invasive procedures like injection sclerotherapy, rubber band ligation, photo coagulation, thermal coagulation and cryo surgery. 3<sup>rd</sup> and 4<sup>th</sup> degree hemorrhoids require surgical excision and open hemorrhoidectomy is a most commonly used cost effective surgical procedure.<sup>12</sup> The commonest postoperative complications of Hemorrhoidectomy are pain, acute urinary retention and bleeding.<sup>13, 14</sup>

This study comprises 200 patients with male to female ratio of 3:2 that is not exactly comparable to national and international data.<sup>15,16</sup> A higher Male preponderance is still comparable to many studies but it might be reflecting the fact men are more likely to seek treatment while females are reluctant to disclose their hemorrhoids problem and are inclined to suffer through in the hope the hemorrhoids disappear. Mean age was 41 years that is comparable to khan MY *et al* and D Almeida *et al* reflecting the impression that hemorrhoids are more common in 4<sup>th</sup> and 5<sup>th</sup> decades.<sup>16,17,18</sup> post operative acute retention was found in 16(8%) patients that is comparable to Warin W(8%). Post operative pain was noted in patients as 10% had mild pain, 3% had moderate pain and 1% had severe pain in first 24 to 48 hours while on 1<sup>st</sup> follow up visits only 2% had mild pain and 1% had moderate pain that is

comparable to khan MY ET al.<sup>15</sup> In this study no any post operative wound infection was observed in all 200 patients who underwent open Hemorrhoidectomy and not given any antibiotic before and after surgery, this is also parallel to the other national and international studies.<sup>9,16</sup>

## CONCLUSION

Surgical site infection remains as a nightmare for most of the surgeons and an injudicious use of prophylactic antibiotics is being practiced in this part of world. This study strongly advocates that open Hemorrhoidectomy can safely be performed without any antibiotic prophylaxis

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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