

Original Research Article

A study of surgical profile of patients undergoing hemorrhoidectomy

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ABSTRACT

Background: Hemorrhoids are common. It is usually defined as increase in size as well as distal displacement of apparently normal cushions which generally leads to symptoms. Globally many people are affected. It is considered as a major public health problem. It has a multifactorial etiology. Objective was to surgical profile of patients undergoing hemorrhoidectomy.

Methods: Present hospital based cross sectional study was carried out for a period of one and a half years at department of general surgery, Gandhi medical college and associated Hamidia hospital, Bhopal, Madhya Pradesh, India, among 90 patients undergoing hemorrhoidectomy. Thorough history, detailed clinical examination, complete rectal examination and hemoglobin estimation was carried out.

Results: It was found that maximum cases were below the age of 40 years. Males suffered more (73.3%) than females (26.7%). Hemorrhoids were seen commonly among urban dwellers (87.7%) than rural dwellers (12.3%). The most common presenting complaint was bleeding in 97.7% of cases. Maximum patients reported to the hospital within one-year history of bleeding i.e. 71.1%. Majority i.e. 73.3% had normal hemoglobin levels. 46.6% had ano-rectal disease.

Conclusions: Incidence of hemorrhoids was more common among the cases of the present study. People below 40 years of age were commonly affected. It was more in males. Bleeding was the most common presenting symptom. Anemia was not so common. Anal fissure was the commonest associated co-morbidity.

Keywords: Anemia, Bleeding, Hemorrhoids, Surgical profile

INTRODUCTION

Hemorrhoids are common. It is usually defined as increase in size as well as distal displacement of apparently normal cushions which generally leads to symptoms. Globally many people are affected. It is considered as a major public health problem. It has a multifactorial etiology. It can be caused by chronic constipation, hard stools which leads to heavy straining etc.

There is dilatation and distortion of vessels as well as damage to the surrounding connective tissue.¹ Around

four percent of the world population is affected by the hemorrhoids. One of the postulating theories says that there is damage to the anal cushion which leads to hemorrhoids. Unlike usual belief it is not varicose veins. In the hemorrhoids, a vascular cushion is formed which is made up of muscle fibers, fibroelastic tissue and there is anastomoses of arteriovenous.

There are three types of hemorrhoids. They are mixed, external or internal types. Anal canal prolapse degree determines the classification of internal type of hemorrhoids. Acute and chronic are the types of external type of hemorrhoids. The patients generally present with

pain, bleeding, itching or prolapse. Initially conservative approach of management is tried. But if the patient does not respond, then other aggressive methods are adopted.²

Those patients who fail to respond to conservative treatment, surgery is done. Such type of patients is usually 5-10%. Also, if the patient presents with more than 3rd degree hemorrhoids and is symptomatic, then surgery is the only choice of treatment.³

Patients usually go to the hospital on their own without much external motivation. They usually have symptoms like bleeding, pain and itching around the anus. Internal hemorrhoids are generally not painful. But they tend to prolapse or they may present with bleeding per rectum. Hence, if the patient present with pain in the anus, then some else pathology must be suspected and such patient deserves detailed investigations. About one fifth of the patients also have anal fissure along with hemorrhoids. It is the internal hemorrhoids only that lead to painless bleeding. Such bleeding is bright red in color because it is arterial. If the patient gives history that he is having rectal bleeding but not as described above, then thorough investigations should be done to suspect other causes of bleeding per rectum. Pain is the predominant feature of external hemorrhoids which are thrombosed. The pain is since anoderm has a high supply of nerves. Hence ligation is not advised for the treatment of external hemorrhoids. Symptomatic hemorrhoids are usually confused with skin tags. Skin tag is nothing but the fibrotic skin. It is present at the anal verge. It is the result of external hemorrhoid which was thrombosed. Generally due to hemorrhoids, there is no risk of carcinoma.⁴

Hence present study was carried out to study the surgical profile of patients undergoing hemorrhoidectomy.

METHODS

Present hospital based cross sectional study was carried out for a period of one and a half years at department of general surgery, Gandhi medical college and associated hamidia hospital, Bhopal, Madhya Pradesh, India, among 90 patients undergoing hemorrhoidectomy.

Institutional ethics committee permission was taken before the start of the study. Patients were first checked for eligibility for inclusion in the present study and then only their informed written consent was obtained. If the patient was not willing to participate in the present study, then he was not included in the present study.

Objective of the study was to study surgical profile of patients undergoing hemorrhoidectomy. The data was collected in the pre-designed, pre-tested, semi structured questionnaire for the present study. When the patient arrived in the outpatient department of general surgery out patient, he was thoroughly checked. At the same time, meticulous history was taken in the present study. History

included details like age, sex, occupation, religion, address etc. of the patients for the present study.

On taking the history of hemorrhoids, it was found that bleeding and prolapsed were the chief complaints asked in the history of present illness in the present study. Hence detailed history on bleeding and prolapsed of hemorrhoids was taken and recorded in the present study. Not only this, history was also taken regarding pain in the hemorrhoids in detail. Also, other historical aspects like relation of bleeding to defecation, bowel habits like regular or irregular, hard or soft stools, frequency, consistency, quantity passed etc, were noted down from the patients. Any history of discharge and its details like color, smell, associated with before or after bowel habit etc, was noted down in the study questionnaire for the present study. Every patient was enquired about symptoms of rectal cancer. Family history of hemorrhoids like any family member suffering or suffered from hemorrhoids was recorded. In the personal history, patient's dietary, bowel and bladder habits were enquired into and recorded in the study questionnaire. Special emphasis was given on asking the history about presence of chronic bowel irregularities and chronic amoebiasis and recorded in the study questionnaire for the present study.

General examination was carried out for each patient. Like pulse, blood pressure, pallor, icterus; edema was specially looked for and entered in the study questionnaire. Systemic examination was carried out for each patient as per the standard guidelines and recorded in the study questionnaire for the present study.

Rectal examination was carried out for each patient. Inspection of the anal and para-anal region was done first to see if there were any external piles, prolapsed internal piles, fissure or peri-anal excoriation. The anal sphincter tone was roughly estimated on palpation. Search was made for other pathologies like rectal carcinoma, polyp hypertrophied anal papilla, thrombosed internal piles etc.

Hemoglobin estimation was done using Sahli's hemoglobin meter as per standard guidelines for all patients. Anemia was defined as per World Health Organization guidelines. The data was entered in the Microsoft Excel Worksheet and analyzed using proportions.

RESULTS

Table 1 shows distribution of study subjects as per demographic parameters. It was found that maximum cases were below the age of 40 years i.e. 62.2% followed by 40-60 years of age group constituting 30% of cases. Males suffered more (73.3%) than females (26.7%). The Hindus had higher incidence (75.5%) than Muslims (24.5%). Hemorrhoids were seen commonly among urban dwellers (87.7%) than rural dwellers (12.3%). But occupation had no impact on incidence of hemorrhoids as

it was similar among manual as well as sedentary occupations. Family history was present in only 6.7% of cases.

Table 1: Distribution of study subjects as per demographic parameters.

Demographic parameters	Number	Percentage
Age (years)	< 40	56 62.2
	40-60	27 30
	> 60	07 7
Sex	Male	66 73.3
	Female	27 26.7
Religion	Hindu	68 75.5
	Muslim	22 24.5
Community	Urban	79 87.7
	Rural	11 12.3
Occupation	Manual	48 53.3
	Sedentary	42 46.7
Family history	Yes	06 6.7

Table 2 shows distribution of study subjects as per presenting complaints. The most common presenting complaint was bleeding in 97.7% of cases followed by pain in 80% of the cases. History of constipation was seen in 30% of the cases followed by prolapsed and itching in 20% of cases each. Discharge and history of worm infestation was seen in 10% of cases each. History of chronic amoebiasis was found in only three cases.

Table 2: Distribution of study subjects as per presenting complaints.

Presenting complaints	Number	Percentage
Bleeding	88	97.7
Pain	72	80
History of constipation	27	30
Prolapse	18	20
Itching	18	20
Discharge	09	10
History of worm infestation	09	10
History of chronic amoebiasis	03	3.33

Table 3: Distribution of study subjects as per duration of bleeding.

Duration of bleeding	Number	Percentage
Less than 1 year	64	71.1
1-5 years	15	16.6
More than 5 years	10	11.22

Table 3 shows distribution of study subjects as per duration of bleeding. It was found that maximum patients reported to the hospital within one-year history of bleeding i.e. 71.1%. Around 16% of the patients reported with history of bleeding for 1-5 years. But even today we can find that there are people who still report even after

five years of bleeding and this proportion was slightly more than 11% in the present study.

Table 4: Distribution of study subjects as per hemoglobin level.

Hemoglobin in gm %	Number	Percentage
< 5	0	0
5-8.9	5	5.5
9-11.9	19	21.1
≥ 12	66	73.3

Though majority of the patients in the present study had history of bleeding per rectum, but very less of them i.e. about 27% were found to be anemic as per world health organization criteria. Majority i.e. 73.3% had normal hemoglobin levels.

Table 5: Distribution of study subjects as per rectal examination findings.

Rectal examination findings	Number	Percentage
External piles	05	5.5
Fistula in ano	01	1.1
Peri-anal abscess	0	0
Anal fissure	36	40
Total with ano-rectal disease	42	46.6

Above table shows that out of the total study subjects, 46.6% had ano-rectal disease as revealed from rectal examination. Among them, majority i.e. 40% had anal fissure followed by external piles in 5.5% of the cases. No one was found to have peri-anal abscess. Only one case had fistula in ano.

DISCUSSION

It was found that maximum cases were below the age of 40 years i.e. 62.2% followed by 40-60 years of age group constituting 30% of cases. Males suffered more (73.3%) than females (26.7%). The Hindus had higher incidence (75.5%) than Muslims (24.5%). Hemorrhoids were seen commonly among urban dwellers (87.7%) than rural dwellers (12.3%). But occupation had no impact on incidence of hemorrhoids as it was similar among manual as well as sedentary occupations. Family history was present in only 6.7% of cases.

The most common presenting complaint was bleeding in 97.7% of cases followed by pain in 80% of the cases. History of constipation was seen in 30% of the cases followed by prolapsed and itching in 20% of cases each. Discharge and history of worm infestation was seen in 10% of cases each. History of chronic amoebiasis was found in only three cases.

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Stock C et al carried-out analysis of 55 studies as per their inclusion and exclusion criteria. They found that majority of the studies were from United States and few from other countries.⁵ They noted that 56% lifetime use of colonoscopy in elderly population. Males were more affected than females. Prevalence increased as the age increased.

Talley NJ et al observed that prevalence of constipation ranged from 2-28%.⁶ They also noted that it is difficult to get the precise data on incidence of constipation. Only few i.e. up to 33% of patients suffering from constipation seek the healthcare. This may be due to expensive health care costs. The authors stated that use of drugs than can cause constipation is the important risk factors. The authors did not believe that lifestyle factors lead to constipation.

Sonnenberg A et al studied epidemiology of constipation and its impact on health.⁷ Based on four different surveys, they presented this analysis. They noted that four million have frequent constipation in United States. This figure leads to a prevalence of two percent. These patients were usually given laxatives and cathartics. They also found that the mortality was around 900 deaths per year. It was more common among females than males. It commonly affects non-whites than whites. People residing in south US were having more prevalence. The author emphasizes on more studies related to this problem.

Faccini M et al reported that the incidence of hemorrhoidal disease is 4.4%.⁸ The prevalence is more among 45-65 years of age group. They also noted that hemorrhoidal disease increases with increasing age. It is more common in whites than in blacks. It is also more prevalence among people with high social class and more in males as compared to females. Thus, the epidemiological pattern of hemorrhoidal disease is different from the epidemiological pattern of constipation. The authors are doubtful about the relation between chronic constipation and hemorrhoidal disease. They stressed that further studies are required to solve this query.

Johanson JF et al noted that exact pathogenesis of hemorrhoids is not clear.⁹ This is even though we suspect many risk factors for hemorrhoids. They studied the trend of occurrence of hemorrhoids with respect to numerous factors like discharge summary from hospital, visits by the physicians etc from some data sources. They found that there was an overall decline in the number of physician visits and discharge summary less frequently reported hemorrhoids. Thus, they concluded that there is an overall decline in the incidence of the hemorrhoidal disease.

Johanson JF et al revealed that in US, the most common chronic digestive disease is constipation and it affects 2% of the population.¹⁰ It increases with increasing age and is more common in the elderly. This finding is similar for both the sexes. Among females it is more common than in males. It was found to be more common among non-whites than whites and people from low social class. Thus, it suggests the influence of environmental factors.

Dietary fiber although implicated in the constipation, remains to be proved. Recent research suggests that constipation is mainly due to lack of proper motility of colon and it is because of disturbance of neural regulation of colonic motility. Hence author states that more studies are required to prove the other factors too.

Johanson JF et al compared the epidemiology of constipation with that of hemorrhoids.¹¹ The prevalence of hemorrhoids was 4.4%. The prevalence was more up to the age of 45-65 years and then it declined. Hemorrhoids were not common in the early age group of less than 20 years of age group. It was more among whites than blacks and more common among people with upper social class. Constipation was more prevalence in older age group of more than 65 years, and more prevalent among blacks. Constipation was more among people with low social class. Thus, the authors questioned the so-called hypothesis that the constipation causes hemorrhoids.

Riss S et al found a prevalence of 38.93% of hemorrhoids.¹² Grade I hemorrhoids was seen among 72.89% of cases. 18.42% had grade II hemorrhoids and 8.16% had grade III hemorrhoids. 44.74% of the patients in their study were symptomatic. They observed that body mass index was a significant risk factor for hemorrhoids.

CONCLUSION

Incidence of hemorrhoids was more common among the cases of the present study. People below 40 years of age were commonly affected. It was more in males. More prevalent among Hindus. Urban residents suffered more than rural residents. Bleeding was the most common presenting symptom. Anemia was not so common. Anal fissure was the commonest associated co-morbidity.

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