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Original Research Article

A study of surgical profile of patients with hemorrhoids at a tertiary care hospital

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ABSTRACT

Background: In hemorrhoids, the anal canal venous plexuses become engorged. It can lead to bleeding, thrombosis, prolapse, pain. Study of surgical profile helps to educate the patients to take proper precautions to avoid the severe forms of it. The objective of the study was to study the surgical profile of patients with hemorrhoids at a tertiary care hospital.
Methods: Present study was hospital based cross sectional study. It was carried out at a tertiary care hospital in the department of general surgery among 100 patients who presented with symptoms suggestive of hemorrhoids during the study period from 1st January 2017 to 31st October 2018.
Results: Majority of the patients 41% were in the age group of 35-45 years. The number affected by hemorrhoids was more in males i.e. 56%. Incidence of hemorrhoids was more in upper class. Incidence of hemorrhoids was less i.e. 21% among those who took only vegetarian diet. Majority of the patients (78%) presented after one year of occurrence of treatment. 54% of the patients had third grade of hemorrhoids. Bleeding was present in the majority i.e. 98% of the patients. On anorectal examination, it was found that 44% of the patients had fissure and 23% of the patients had peri anal skin tag. Anorectal examination was within normal limits in 33% of the cases.
Conclusions: Vegetarian diet may be protective against hemorrhoids. Bleeding was the most common presenting symptom. Thus, study helped to identify that being male, younger age group, non-veg diet may be the risk factors for hemorrhoids.

Keywords: Hemorrhoids, Symptoms, Surgical profile

INTRODUCTION

In hemorrhoids, the anal canal venous plexuses become engorged. It can lead to bleeding, thrombosis, prolapse, pain. The alternative name for the hemorrhoids is piles. They are known to mankind since ancient times.[1]

Near anus and near rectum, there is swelling of the blood vessels which leads to the occurrence of the hemorrhoids. The veins which commonly get affected and which can lead to hemorrhoids are usually seen in the lower part of the anus and rectum. Due to swelling, the walls of these veins get stretched, it becomes thin, and due to regular passage of the hard stools, give rise to hemorrhoids. It has been said that almost everyone may get affected due to hemorrhoids. It is so common.[2]

Of all the investigations advised in colorectal cases, 50% are due to hemorrhoids. It should not be neglected; otherwise it can lead to serious condition. All ages and both sexes are equally affected by hemorrhoids. Globally the prevalence of hemorrhoids has been estimated as 50-85% of the total population. The prevalence of hemorrhoids in India has been estimated at 75%.[3]

Pain, swelling, itching, bleeding per anum, discomfort in the anal region are some of the most common symptoms of the hemorrhoids. They affect the quality of life of the patients very severely.[4]

Many patients suffering from hemorrhoids or piles do not seek medical care in the early period of occurrence of the symptoms. This tendency may be due to the fact that the disease is affecting the anal region and they feel embarrassed to seek the medical care. Some other may not go to the hospital due to economic reasons.[5]

It has been estimated that about 40 million people are suffering from hemorrhoids in India. It has been thought that there are some risk factors which can lead to piles and they can be increasing age, overweight and obesity, psychological problems, history of chronic constipation, pregnancy, use of low fibre in the diet, likes for taking spicy foods and habit of alcohol consumption etc.[6] Hemorrhoids can be internal or external or mixed.[7]

Present study was carried out to study the surgical profile of patients with hemorrhoidectomy so that we can throw a light on the etiopathogenesis of the patients with hemorrhoidectomy.

METHODS

Present study was hospital based cross sectional study. It was carried out at a tertiary care hospital in the department of general surgery among 100 patients who presented with symptoms suggestive of hemorrhoids during the study period from 1st January 2017 to 31st October 2018.

Institutional Ethics Committee permission was taken after presenting the proposal for the present study. After the clearance from the Institutional Ethics Committee consent form was created as per Institutional Ethics Committee norms. Written consent from each and every patient willing to participate in the present study was taken.

Inclusion criteria

Inclusion criteria were patients with confirmed diagnosis of haemorrhoids; age 35-70 years.

Exclusion criteria

Exclusion criteria were haemorrhoids patients but having other serious co-morbidities; bed ridden patients; not willing to be part of this study.

Study questionnaire was prepared for the present study and then it was tested and approved by all authors involved in the present study. Thus the data was collected in the pre designed, pre tested, and semi structured study questionnaire.

Details of each and every patient with hemorrhoids like age and sex was noted. Age was rounded to the nearest year as per the date of birth told by the patient. Patients were asked about their monthly income and based on the answer given by them; they were grossly classified as belonging to either upper class or lower class. Dietary history was taken they were classified as having vegetarian diet or mixed diet based on the answers given by them.

Patients with symptoms were asked as to since what time they were having the symptoms. Then we classified them into those having symptoms since less than one year and having symptoms with more than one year of duration.

The anorectoal examination was carried out for each and every patient included in the present study. The hemorrhoids were examined thoroughly and classified into different grades. Symptoms of the patients were also noted in the chronological orders and recorded in the study questionnaire.

Presence of fissure or peri anal skin tag was confirmed for each and every patient included in the present study.

Statistical analysis

The data was entered in the Microsoft Excel Sheet and analyzed using proportions.

RESULTS

Majority of the patients 41% were in the age group of 35-45 years followed by 33% in the age group of 46-55 years. As the age increased the number of patients decreased from 41% in the age group of 35-45 years to only 11% in the age group of 66-70 years (Table 1).

Table 1: Age wise distribution in study group.

Age group	Number	Percentage (%)
35-45	41	41
46-55	33	33
56-65	15	15
66-70	11	11
Total	100	100

Table 2: Gender distribution in the study group.

Gender	Number	Percentage (%)
Male	56	56
Female	44	44
Total	100	100

The number affected by hemorrhoids was more in males i.e. 56% compared to 46% for females. Thus the incidence of hemorrhoids is more in males compared to females (Table 2).

Table 3: Age and gender distribution in the study group.

Age group (years)	Gender				Total	
	Male		Female			
	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)
35-45	22	39.3	19	43.2	41	41
46-55	19	33.9	14	31.8	33	33
56-65	8	14.3	7	15.9	15	15
66-70	5	8.9	6	13.6	11	11
Total	56	56	44	44	100	100

Overall the incidence of hemorrhoids was more in males compared to females. But age wise distribution shows that females are more affected than males. In the age group of 35-45 years and in the age group of 66-70 years more females were affected. In the age group of 46-55 years, more males were affected. But in the age group of 56-65 years, the difference was not much (Table 3).

Table 4: Distribution of study population as per socio economic class.

Class	Number	Percentage (%)
Upper	52	52
Lower	48	48
Total	100	100

As per the table above, the incidence of hemorrhoids was more in upper class compared to the lower class where only 48% were found to be affected. But statistically the difference might not be significant (Table 4).

Table 5: Distribution of study population as per dietary pattern.

Diet	Number	Percentage (%)
Veg	21	21
Mixed	79	79
Total	100	100

Incidence of hemorrhoids was less i.e. 21% among those who took only vegetarian diet compared to 79% among those who took mixed diet i.e. vegetarian as well as non vegetarian diet. Thus non vegetarian diet can predispose a person to the risk of haemorrhoids (Table 5).

Table 6: Distribution of study population as per duration of symptoms.

Duration in year	Number	Percentage (%)
Less than one year	22	22
More than one year	78	78
Total	100	100

Majority of the patients presented to our outpatient department after one year of occurrence of treatment i.e. 78% compared to only 22% of the patients who presented to our outpatient department within one year of occurrence of symptoms. Thus majority of the population are either negligent of the signs and symptoms and do not seek medical advice unless and until it is very severe (Table 6).

Table 7: Distribution of study population as per grading of haemorrhoids.

Grades	Number	Percentage (%)
Third grade	54	54
Fourth grade	46	46
Total	100	100

54% of the patients had third grade of hemorrhoids compared to 46% of the patients with fourth grade hemorrhoids. No patient had first or second grade of hemorrhoids. This may be correlated with above table where most of the patients presented to the hospital after more than one year of occurrence of the symptoms (Table 7).

Table 8: Distribution of study population as per symptoms.

Symptoms	Number	Percentage (%)
Bleeding	98	98
Constipation	89	89
Pain	86	86
Prolapse	84	84

Bleeding was present in the majority i.e. 98% of the patients followed by constipation in 89% of the cases which was followed by pain in the anal region in 86% of the cases and prolapse was seen in 84% of the cases. One patient had more than one symptoms complex (Table 8).

Table 9: Distribution of study population as per additional anorectal findings.

Findings	Number	Percentage (%)
Fissure	44	44
Peri anal skin tag	23	23
Normal	33	33
Total	100	100

On anorectal examination, it was found that 44% of the patients had fissure and 23% of the patients had peri anal skin tag. Anorectal examination was within normal limits in 33% of the cases (Table 9).

DISCUSSION

The age range of this study was 35-68 years. In this study the most common age group was 35-45 with 41% cases distributed in this group. Next most common age group was 46-55 age groups. Mean age was 47±3.2 years. This was in accordance with Thirumalagiri et al 45.8±13.8 years, Sachin et al with mean age of 40.06 years and Kara et al who concluded median age of 37.4±11.7 (range, 19-63) years.[8-10] Oughriss et al, in their multicentric study found mean age of 51 years, which was similar to our study.[11] Chauhan et al, concluded 55% patients were between 20-40 years, which was on higher side this may be due to larger age group range in their study.[12] George et al concluded mean age of 39.72 years for stapled hemorrhoidopexy and 40.26 years for open method.[13] It was found that there is no difference in age between the treatment groups (p=0.817), this finding was almost similar with our study with mean age in stapler method was 45.89 and open method 42.75 years. Krishna Kishore et al study 41-50 age group formed 67% of study population this difference was may be due to different study sample size.[14]

The age range of this study was 37-68 years while in George et al study the age range was patient was 22-67.[13] This higher age range in our study was due to inclusion criteria of 35-70 years.

In this study out of total 41 cases, 51% in open method belonged to 35-45 age group while in stapler group 41% belonged to age group of 35-45. Sachin et al concluded similar results with 26% were in the age group 21-30 years in the open hemorrhoidectomy group, 28% were in the age group 21-30 years, and 26% were in the age group 31-40 years in stapler method.[9]

In our study mean age of open and stapler method was 46.12 and 48.46 years. In a study by Shalaby et al the mean (S.D.) age of patients in the stapled and open groups was 44.1 (3.2) and 49.1 (12.2) years respectively.[15] In a study by Khan et al the mean age was 40.7±11.6 years.[16] All these studies were in accordance with our study. Maurya et al, said there was no statistical difference in the mean age group between the two groups, which was similar to our study.[17]

Out of total cases, male formed 56% and rest 44% formed by females, there is no any significant association of gender distribution in two surgical groups, also there is no any significance between age groups and gender distribution in study groups. This result was almost in accordance with Thirumalagiri et al, studies in which male were (69%) and female were (31%) and in George et al study male were 55%, female were 45%.[8,13] Chauhan et al, also concluded higher incidence of male 70% and Kara et al et al study which showed male 65% and females 35%.[10,12] Gravie et al also concluded no significant differences between the 2 groups with respect to gender.[18] Sachin et al also supported our higher male findings.[9] All these findings were similar with our study findings.

In this study the overall male: female ratio was 1.27:1 which was in contrast with studies done by Baliga et al, study where male: female ratio was 6.5:1.[19] Out of total male 46% male were in open group and 54% were in stapler group. While out of total females 54% female where in open group and 46% were in stapler group. This association was not found to be significant. This was in accordance with Thejeswi et al study in which out of 20 stapled group cases, 14 (70%) were males and 6 (30%) were females, in the open group there were 19(95%) males and 1 (20%) female patient.[20] These findings are on higher side in open group, which may be due to different study population and study area. While Krishna Kishore et al concluded 83% males; only 17% female, this was not in accordance with our study.[14]

Hindus formed majority 69% of the study population which is found to be significant, this can be just an incidental finding was majority study population belonged to Hindu religion.

Upper class formed 52% of study. But there was no any significant association between hemorrhoids and socio economic class. Similar conclusion was drawn by Johanson et al who said higher socioeconomic class was afflicted with a greater frequency.[21]

With 79% study subjects having mixed diet which is found to be associated significantly. Johanson et al said Caucasians of higher socioeconomic class were afflicted with a greater frequency and was theorized to be diet related.[21] Loder et al said low fiber diet is leading cause for piles. Both these study supported our findings.[22]

Higher duration (above 1 year) of hemorrhoids in 78% cases was found to be significant in study population.

Hemorrhoid grade is not found to be significant in study population, with grade III forming 54% and grade IV forming 46% of total cases. Demir et al study 50.5% admitted with Grade III, and 39.6% with Grade IV disease.[23] In Maurya et al III degree haemorrhoids 65% were the commonest haemorrhoids.[17] Both these studied had almost similar results as this study. In a study by Khan et al majority 53.3% of patients had third degree haemorrhoids.[16] Sachin et al also concluded results in accordance with our study.[9]

Thirumalagiri et al, Kara et al, George et al, and Chauhan et al, had similar conclusion saying grade third degree hemorrhoids were most common in their studies.[8,10,12,13]

In this study bleeding 98% was found to be most common symptom, next was constipation 89% in study population. These are not found to be significantly distributed in either of the two groups. Similar was concluded by Demir et al with most common complaint of bleeding in 41.5%, Maurya et al who reported bleeding in 76.67%.[17,23]

Out of total 100 cases 67 showed additional findings, fissure in 44 cases and 23 showed perianal skin tag. There was no significance in distribution of these cases in surgical groups. Maurya et al study out of total anorectal findings 65% had a fissure and 35% had fistula, they also did not find any significance in two study groups.[17] While Chauhan et al study showed only 5% cases with anal fissures.[12] This lower finding may be due to smaller sample size and different disease duration.

CONCLUSION

Being younger age group, being male, belonging to upper class, being non vegetarian were some of the factors found to predispose the person to the risk of hemorrhoids. Though we cannot say that they are exactly the risk factors but further studies are warranted as hemorrhoids are very common in the community. Late presentation of the patients to the hospital was another feature of this study. Bleeding was common symptom and fissure presence was common.

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