



# International Journal of Surgery Science

E-ISSN: 2616-3470  
P-ISSN: 2616-3462  
© Surgery Science  
[www.surgeryscience.com](http://www.surgeryscience.com)  
2020; 4(3): 355-357  
Received: 19-05-2020  
Accepted: 21-06-2020

**Dr. Mary Prescilla VB**  
Post Graduate, Department of  
General Surgery, Rajah Muthiah  
Medical College and Hospital,  
Chidambaram, Tamil Nadu, India

**Dr. Kabalimurthy J**  
Professor, Department of General  
Surgery, Rajah Muthiah Medical  
College and Hospital,  
Chidambaram, Tamil Nadu, India

**Dr. Sundar Prakash S**  
Associate professor, Department  
of General Surgery, Rajah Muthiah  
Medical College and Hospital,  
Chidambaram, Tamil Nadu, India

**Dr. Jospin Amala A**  
Post Graduate, Department of  
General Surgery, Rajah Muthiah  
Medical College and Hospital,  
Chidambaram, Tamil Nadu, India

**Dr. Kamal Kumar K**  
Post Graduate, Department of  
General Surgery, Rajah Muthiah  
Medical College and Hospital,  
Chidambaram, Tamil Nadu, India

**Dr. Aravindhnan M**  
Post Graduate, Department of  
General Surgery, Rajah Muthiah  
Medical College and Hospital,  
Chidambaram, Tamil Nadu, India

**Corresponding Author:**

**Dr. Mary Prescilla VB**  
Post Graduate, Department of  
General Surgery, Rajah Muthiah  
Medical College and Hospital,  
Chidambaram, Tamil Nadu, India

## Risk factors and clinical evaluation of haemorrhoids in a rural medical college

**Dr. Mary Prescilla VB, Dr. Kabalimurthy J, Dr. Sundar Prakash S, Dr. Jospin Amala A, Dr. Kamal Kumar K and Dr. Aravindhnan M**

**DOI:** <https://doi.org/10.33545/surgery.2020.v4.i3f.522>

### Abstract

**Background:** The study was conducted to analyse the age incidence, sex incidence, role of occupation, socioeconomic status, diet and type of toilet in haemorrhoids along with its clinical presentation and evaluation.

**Methods:** This study was conducted in our hospital in the department of General Surgery, from October 2018 to September 2020, among 100 patients who presented with haemorrhoids. The risk factors and clinical evaluation was done and the results were correlated with various other studies.

**Results:** The most common age group affected are middle aged between 41-60 years and the Mean age of the patient was 43 years in our study. Males (70%) are commonly affected. Moderate workers 55% with low socioeconomic status (66%) are prevalent. Majority of the people (88%) consumes Non vegetarian diet. Indian toilet was used by 78% of people. Bleeding per rectum in 75 patients, mass descending during defecation in 65 patients, Pain during defecation in 51 patients and altered bowel habits in 53 patients (constipation in 51 patients and diarrhea in 2 patients) and pruritus in 2 patients. Grade 2 haemorrhoids (53%) was the common clinical presentation. 18 patients had associated fissure in ano and 4 patients with polyp. Haemorrhoidectomy was done in 93 patients. Injection sclerotherapy was given for 7 patients. Among them, Haemorrhoidectomy and injection sclerotherapy was given to 15 patients.

**Conclusion:** Patients with haemorrhoids needs to adopt a healthy life style and modifications at their diet, occupation, bowel habits are needed along with some exercises, rather than being sedantary.

**Keywords:** Bleeding, diet, toilet

### Introduction

Haemorrhoids are familiar condition among public which people colloquially call as `piles`. They are very common disease of anal region which constitutes about 50% of colorectal investigations. The sufferings are out of proportion to the size of lesion and they become extremely apprehensive to evacuate the bowel. Its incidence can be at any age, affecting both sexes equally. Many pathophysiology changes has been evident with the development of haemorrhoids. The changes are followed by constipation, bleeding during defecation, mucous discharge, prolapse of haemorrhoidal tissue, pruritus. This study is aimed at assessing the risk factors and clinical evaluation of haemorrhoids.

### Methods

This study was conducted in our hospital in the department of General Surgery from October 2018 to September 2020. A total of 100 Patients who was diagnosed with haemorrhoids and admitted were studied. Pregnant women and patients with portal hypertension were excluded. After thorough history taking as per proforma with particular reference to occupation, socioeconomic status, diet, type of toilet, general physical examination and detailed local examination of anus and rectum, proctoscopy examination, sigmoidoscopy/colonoscopy was done. Routine blood investigations was taken. Patients were assessed and posted for surgery and patient was followed up.

### Results

Many studies have been conducted to assess the risk factors, clinical presentation of haemorrhoids. Incidence of haemorrhoids are common among middle aged people (46%) of age 41-60 years with mean age of 43 years. Males (n=70,70%) preponderance was found in this study.

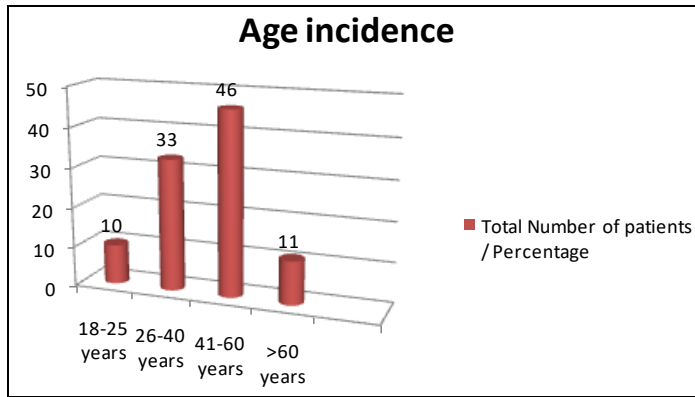


Fig 1: Age Incidence

Moderate workers are affected more 55%, heavy workers like coolie, farmers, weight lifters are 35%. Light to sedantary workers like house wives, clerks are 10%. Low class people are commonly affected with 66%. People consuming both vegetarian and non vegetarian (88%) are most affected than vegetarian people (12%). High fibre diet reduces constipation/ straining at stools and haemorrhoids.

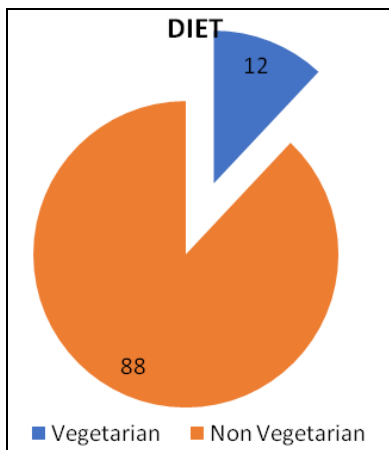


Fig 2: Diet

Squatting position of toileting reduces the risk of haemorrhoids than sitting position as the anorectal is increased and straining at stools are avoided. In this study, as most of the people are from low socioeconomic status, Indian type toilet are being mostly used than Western type of toilet.

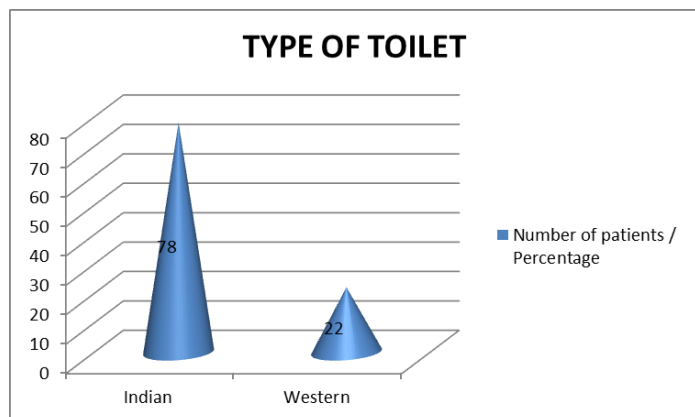


Fig 3: Type of Toilet

The most common clinical presentation of haemorrhoids is bleeding during defecation (75%), mass descending per rectum

is 65%. 52% patients had constipation which is one of the most important risk factor along with history of straining at stools. 51% had pain. 2% came with pruritus and diarrhea.

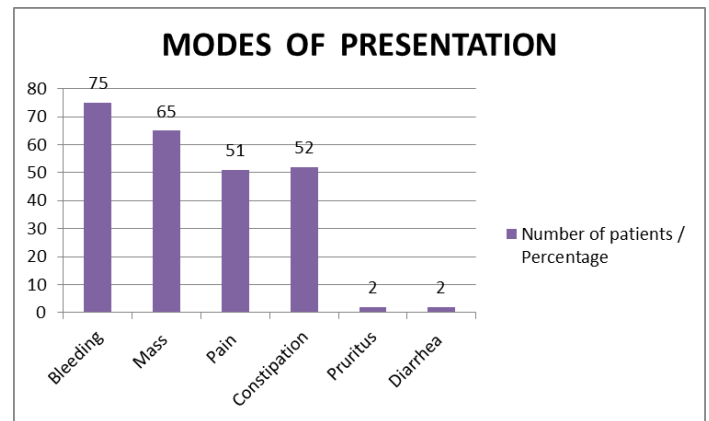


Fig 4: Modes of Presentation

Grade 2 haemorrhoids (53%) was prevalent among the patients diagnosed. 35% came with grade 1 haemorrhoids. 6% patients with grade 3 and grade 4 each. Haemorrhoid Severity Score maximum was 14/20. While minimum was 7/20. Highest number of patients (35%) showed HSS of 9/20. Minimum number of patients had 11/20 and 13/20.

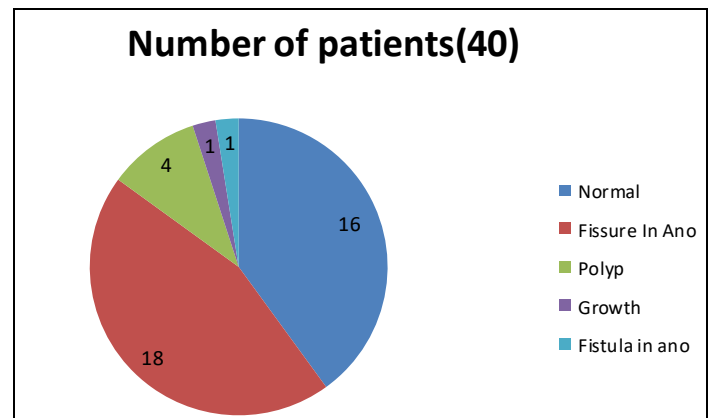


Fig 5: Lower Gastro intestinal Endoscopy Findings

Among these patients Lower Gastrointestinal Endoscopy was done in 40 patients. Normal endoscopic finding other than haemorrhoids was seen in 16 patients. Along with haemorrhoids, Fissure in ano was observed in 18 patients, polyp was seen in 4 patients, Fistula in ano in 1 patient and rectal growth in 1 patient. Haemorrhoidectomy was done in 93 patients. Injection sclerotherapy was given for 7 patients. Among them, both Haemorrhoidectomy and injection sclerotherapy was given to 15 patients depending upon grade. Partial Lateral Internal Sphincterotomy was done in patients associated with fissure and in those who had increased sphincter tone. Patient was advised regarding Life style changes and avoidance of risk factors. 2 patients had thrombosed haemorrhoids. No patient came with recurrence.

**Discussion**

Haemorrhoids were common among Middle aged people of age group 41- 60 years with mean age of 43 years of age according to this study.

In Rizwan Mansoor Khan *et al.*,<sup>[6]</sup> haemorrhoids are common above 40 years of age.

In Ali S A *et al.*,<sup>[4]</sup> incidence of haemorrhoids were common in less than 40 years of age.

In Sex incidence, Male preponderance was seen in this study. Both in Rizwan Mansoor Khan *et al.* and Ali S A *et al.*, male gender are higher with 75% and 55% respectively when compared to female sex.

In this study 70% are male. This could be due to male patients attending hospitals are higher than female and also female feel very shy to come to hospital and discuss with anorectal diseases. Farmer/ coolie - heavy worker and moderate worker present with haemorrhoids more than light worker / sedentary people. Farmers due to their high physical activity and prolonged standing develop haemorrhoids thus contributing to 35%. 55% are Moderate workers. 10% are light workers or sedentary ones. In Ali S A *et al.*, Farmers contribute 52.5% which is higher than household and sedentary workers.

Most of the people in our study are low socioeconomic people

contributing 66% while middle class people are 34%. This go in hand with the occupation of the people with farmers being low to middle class people.

High fiber diet is needed to avoid constipation<sup>[3]</sup>. Food with low fiber content contribute to haemorrhoid and its symptoms. In Rizwan Mansoor Khan *et al.*, 78.7% (245/311) follows Non vegetarian diet when only 21.3% (66/311) are vegetarian. In this study, 88% follows Non vegetarian diet while only 12% are vegetarian. As vegetarian diet has high fiber content, it increases bulk of stool and ease evacuation of stools rather than formation of hard stools. This is the reason for reduced incidence of haemorrhoids in vegetarian.

Sitting posture during defecation may contribute to haemorrhoids. But there is no study stating the difference between the two postures, though squatting seems to be better than sitting posture. In this study, 78% use Indian toilet - squatting posture and rest 22% use western toilet - sitting posture. This can be because of people of this area belongs to low and middle class mostly.

**Table 1:** Comparison Study of Age and Sex Incidence

Study	Age incidence	Sex incidence		Number of cases(n)
		Male	Female	
Rizwan Mansoor Khan <i>et al.</i> <sup>[6]</sup>	45-65 years (58.2%)	75.9%	24.1%	311
Ali S A <i>et al.</i> <sup>[4]</sup>	20-39 years (55%)	85%	15%	40
Coulibaly <i>et al.</i> <sup>[8]</sup>	30-39 years	75.71%	34.29%	140
Zeitoun <i>et al.</i> <sup>[1]</sup>	45-65 years	-	-	
Present study	41-60 years (46%)	70%	30%	100

75 patients had bleeding during defecation, 65 patients had mass per anum. Pain was present in 51 patients. Constipation was predominant in 52 patients while 2 patients had pruritus. In Ali S A *et al.*, bleeding per rectum and mass descending during defecation was 85%, pain was 77.5%, pruritus was 12.5%. Ravindranath GG *et al.*<sup>[2]</sup> studied in 40 patients and Johannson *et al.*<sup>[3, 5]</sup> studied in 140 patients about the clinical presentation. Bleeding per rectum was the commonest presentation.

Associated findings during sigmoidoscopy/ colonoscopy are Fissure, Fistula, Polyp and Growth. 16 patients had fissure, 4 patients had polyp 1 patient had fistula and 1 patient had growth in rectum. 16 patients had normal finding. In Coulibaly *et al.*<sup>[8]</sup>, fissure was present in 17.14%, while fistula was in 2.14%. Patients were treated with Haemorrhoidectomy<sup>[9, 10]</sup> and injection sclerotherapy<sup>[7]</sup>.

### Conclusion

The incidence of haemorrhoids are common in middle aged people of 41-60 years.

Males are commonly affected than females.

Incidence is higher among Moderate workers signifying increased physical activity.

Low Socio-Economic Status people are mostly affected as they are moderate to heavy worker.

Incidence is more in Non-vegetarian people.

Indian toilet are being commonly used.

From this study risk factors are to be avoided to prevent haemorrhoids by changing life style to adopt a healthy life style and modifications at their physical work, diet, bowel habits and toileting type. Consuming diet rich in fiber content like vegetables and fruits and avoiding straining at stools while using squatting type of toilet are to be followed in prevention of haemorrhoids.

### Declaration of Conflict of Interest

There is no conflict of interest.

### Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

### References

- Zeitoun JD, Lehur PA, Atienza P. Pathologie hemrrhoidaire:ou en sommes-nous en Hepato Gastro & Oncologie Digestive 2011;18:177-192.
- Ravindranath GG, Rahul BG. Prevalence and risk factors of haemorrhoids in a semi-urban centre. Int. Surg J 2018; 5:(2):496-499.
- Johannsson HO. Bowel habits in haemorrhoid patients and normal subjects. American Journal of Gastroenterology 2005;100:401-406.
- Asif Ali, Mohammad Fazellul Rahman Shoeb. Study of risk factors and clinical features of hemorrhoids - International Surgery Journal 2017;4(6):1936-1939.
- Keighlay WRB, Buchman P, Minervion S, Arabi M, Alexander Williams J. prospective trials of minor surgical procedure and high fiber diet for hemorrhoids British Medical Journal 1979;2:967-969.
- Rizwan Mansoor Khan, Malik Itrat, Ansari AH, Zulkifle M, Ehtisham. A study on associated risk factors of haemorrhoids- Journal of biological and scientific opinion 2015;3(1).
- Anderson HG. the Injection treatment of hemorrhoids practitioners 1909;113:399.
- Coulibaly A, Kafando R, Somada KS *et al.* The Haemorrhoids 'Pathology: Epidemiological, Diagnostic, Therapeutic and Evolutionary Aspects - Open journal of gastroenterology 2016;6:343-352.
- Ferguson JA, Heaton JR. Closed hemorrhoidectomy Dis. Colon rectum 1959;2:176.
- Park AG. submucous haemorrhoidectomy project R Soc Med 1959;52(supplement):89-91.