



General Surgery

A STUDY OF RISK FACTORS OF HAEMORRHOIDAL DISEASE IN ADULT IN A TERTIARY CARE CENTRE

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ABSTRACT

Background/Aims: Haemorrhoids are the most common benign anorectal disorder in clinical practice and it cause substantial discomfort, disability, and decrease in quality of life(QOL). Risk factors commonly associated with haemorrhoidal disease include advancing age, female gender, lower socioeconomic status, low fibre diet, chronic constipation, chronic diarrhoea, chronic straining during defecation, pregnancy, alcohol intake, sedentary life style, obesity and spinal cord injuries etc. The objective of this study is to estimate the incidence of various risk factors and clinical presentation of haemorrhoidal disease in adult in a tertiary care centre at TRIHMS, Naharlagun. **Materials And Methods:** This was a prospective study of 200 patients of haemorrhoids attend at SOPD at TRIHMS, Naharlagun for a period of 6 months from 01-01-2022 to 30-06-2022. The diagnosis of haemorrhoids was based on thorough history, careful physical examination and proctoscopy examination of anal canal and distal rectum. High-risk patients investigated with colonoscopy examination. Patients who met the inclusion criteria were included in this study. All the relevant details of patients about age, sex, clinical presentation, risk factors and different degree of haemorrhoids were recorded. **Results:** The common age group of haemorrhoids was from 18 years to 37 years(67.5%) and followed by 38 years to 57 years (30.5%). There was 53% of females and 47% of males. Per rectal bleeding (71.5%) followed by pain during defecation (54.5%) and prolapsed anal mass (32.5%). The common risk factors are non-vegetarian diet (95.5%), constipation (88.5%), straining during defecation (63.5%) and use of mobile phone in toilet (92.5%). Internal haemorrhoids- second degree (47.5%) and third degree (40.5%) are common types of haemorrhoids in this study. **Conclusion:** Haemorrhoids are the common benign anorectal disorder in clinical practice. There are many modifiable risk factors (lifestyle, dietary habits, addictive habits, use of mobile phone in toilet etc.) and non-modifiable risk factors (age, gender, heredity and genetic makeup) are important for development of haemorrhoids. So proper suggestion and proper education of the patients is essential to take proper precautions and avoid unnecessary complications of haemorrhoids.

KEYWORDS : Haemorrhoidal disease, Risk factors, Clinical presentation.

INTRODUCTION

Haemorrhoids [Greek: haima= blood, rhoos=flowing; synonym: Piles (Latin: Pila= a ball; "Piles I The common people call them piles, the aristocracy call them haemorrhoids, the French call them figs- what does it matter so long as you can cure them?" (John of Arderne, 1370)] are dilated veins occurring in relation to the anus[1]. Haemorrhoids may be internal or external depending on the position of the varicosity. If it is above the Hilton's line it is called "internal haemorrhoids" and if it is below the Hilton's line it is called "external haemorrhoids". So internal haemorrhoids is covered by mucous membrane whereas the external haemorrhoids is covered with skin [2].

Haemorrhoids is the most common anorectal disease. Estimated prevalence in Europe and US is 4% of the population. The prevalence in India is unknown, about 75% of the people with anorectal disease have haemorrhoids. Haemorrhoids affects both gender equally (men report their complaint more commonly to GPs), peaking between 45-65 years of age to decline there after [3].

Advancing age, female gender, lower socioeconomic status, lack of physical activity, pregnancy, alcohol consumption, chronic constipation, chronic diarrhoea, low fibre diet, prolonged squatting in the toilet, chronic abdominal straining, sedentary life style, obesity and spinal cord injuries are the important risk factor for development of haemorrhoidal disease. The present study aims to estimate the incidence of various risk factors and common clinical presentation of haemorrhoidal disease in adult in a tertiary care centre at TRIHMS, Naharlagun.

MATERIALS AND METHODS

This was a prospective study of 200 patients presenting with symptoms of haemorrhoids and diagnosed as haemorrhoidal disease by thorough history, careful physical examination and proctoscopy examination of the anal canal and distal rectum. High-risk patients investigated with colonoscopy examination in adult attend at SOPD at TRIHMS, Naharlagun during a period of 6 months from 01-01-2022 to 30-06-2022.

Inclusion Criteria

(I) Male and female-both gender of patients in the age of 18 years and above attend at SOPD at TRIHMS and diagnosed as haemorrhoidal disease.

Exclusion Criteria

- (I) Patients with haemorrhoids below the age of 18 years.
- (ii) Patients with haemorrhoids during pregnancy.
- (iii) Patients with haemorrhoids secondary to anorectal carcinoma.
- (iv) Patients with haemorrhoids are not willing to join in this study.

A detailed of all patients who met the criteria was taken and thorough history, careful physical examination-include inspection of the anus, digital rectal examination(DRE), proctoscopy examination of the anal canal and distal rectum was done and high-risk patients investigated with colonoscopy. Written consent was taken from study subjects or their relatives. The objective of the study was to estimate the incidence of various risk factors and common clinical presentation associated with haemorrhoidal disease in adult at TRIHMS. **This study was**

approved by the institutional ethical committee(IEC)of TRIHMS.

RESULTS

A total of 200 patients with haemorrhoidal disease attend at SOPD at TRIHMS were included in this study.

Table1: Age Distribution Of Patients of haemorrhoidal Disease.

age group(year)	number of patients	Percentage
18-37	135	67.5
38 – 57	61	30.5
58 – 77	4	2
Total	200	100

The most common age group was between 18 years and 37 years (67.5%) followed by 38 years and 57 years (30.5%). The young patients were 18years and elder patient was 77 years in this study.

Table 2: Sex Distribution Of Patients Of Haemorrhoidal Disease.

Sl. No	sex	Number of patients	percentage
1	male	94	47
2	female	106	53
Total		200	100

There was 106 (53%) of females and 94 (47%) of male patients in this study. Female patients were more commonly affected compared to males.

Table 3: Modes Of Presentation Of Patients Of Haemorrhoidal Disease.

Sl. No	Clinical features	Number of patients	Percentage
1	Per rectal bleeding	143	71.5
2	Pain during defecation	109	54.5
3	Prolapsed anal mass	65	32.5
4	Strangulated anal mass	4	2

The most common clinical feature was per rectal bleeding (71.5%), pain during defecation (54.5%) and prolapsed anal mass (32.5%) of cases in this study(table3).

Table 4: Common Risk Factors Of Haemorrhoidal Diseases

Sl. No	Risk factor	Number of patients	Percentage
1	Non vegetarian diet	191	95.5
	Vegetarian diet	9	4.5
2	Constipation	177	88.5
3	Alcohol consumption	57	28.5
4	Smoking	45	22.5
5	Straining during defecation	127	63.5
6	Mobile phone use in toilet	185	92.5
7	Regular exercise	52	26

The common risk factors are non-vegetarian diet (95.5%), constipation (88.5%), straining during defecation (63.5%) and use of mobile phone in toilet (92.5%) in this study (table 4).

Table 5: Types Of Haemorrhoids Present In This Study:

Sl No	Types of haemorrhoids	Number of patients	Percentage
1	External haemorrhoids	7	3.5
2	Internal haemorrhoids	First degree 14 Second degree 95 Third degree 81 Fourth degree 3	7 47.5 40.5 1.5
Total		200	100

Diagnosis was based on thorough history, careful physical examination and proctoscopy examination of the anal canal and distal rectum. Internal haemorrhoids – second degree (47.5%) and third degree (40.5%) are common types of haemorrhoids in this study (table 5).

DISCUSSION

Varicosities of the veins of the anal canal are known as haemorrhoids. Haemorrhoids are the most common benign anorectal disease in clinical practice. It causes substantial discomfort, disability and decrease in quality of life. Haemorrhoids may be internal or external depending on the position of the varicosity. External haemorrhoids arise from the inferior haemorrhoidal plexus below the dentate line and

is covered with skin and contains somatic pain receptors. Internal haemorrhoids arise from superior haemorrhoidal cushions above the dentate line. Located in the left lateral, right anterior and right posterior positions. The overlying mucosa has visceral innervation. Internal haemorrhoids severity can be divided into four degree-(i) First degree- painless bleeding with no prolapse, (ii) Second degree- bleeding associated with prolapse (with Valsava manoeuvres) and spontaneous reduction, (iii) Third degree- bleeding associated with prolapse which requires manual reduction and (iv) Fourth degree-chronically prolapsed and is irreducible.

Haemorrhoids may be “symptomatic” of some other condition, and this important fact must be remembered when they are found. Symptomatic haemorrhoids may appear(a)in carcinoma of rectum. This, by compressing or Causing thrombosis of the superior rectal vein, giving rise to haemorrhoids sufficiently often to warrant examination of the rectum and the recto-sigmoid junction for neoplasm in every case of haemorrhoids. (b) During pregnancy.

Clinical presentation of haemorrhoids often present with painless bleeding (bright red, on toilet paper, or drips into toilet bowl), prolapsing piles (reducible initially), mucus discharge, and pruritus. Pain is rarely significant in internal haemorrhoids, but may be so prominent in thrombosed external piles to warrant hospitalization [4]. Thorough history and careful physical examination-is the mainstay of diagnosis of haemorrhoids. Physical examination should include inspection of the anus, digital rectal examination, proctoscopy of the anal canal and distal rectum. High-risk patients should be investigated with colonoscopy. Risk factors commonly associated with haemorrhoids include advancing age, female gender. Lower socioeconomic status, low fibre diet, chronic constipation and diarrhoea, lack of physical activity, pregnancy, alcohol consumption, chronic straining during defecation, habit of postponing the bowel movement, obesity and spinal cord injuries etc. Complications of haemorrhoids include ulceration, fibrosis, strangulation and thrombosis, infection and suppuration etc. The most common age group was between 18 years and 37 years followed by 38 years and 57 years in this study. In this study of 200 patients of haemorrhoids, 47% were males and 53% were females. It was almost similar to the study conducted by Shinde PR et al [5]. In this study, the common clinical features were per rectal bleeding (71.5%), followed by pain during defecation (54.5%) and prolapsed anal mass (32.5%). In the study conducted by Shinde PR et al reported rectal bleeding (98%), pain during defecation (86%) and a prolapsed mass (84%). In this study, the important risk factors of haemorrhoids are non-vegetarian diet (95.5%), constipation (88.5%), straining during defecation (63.5%) and use of mobile phone in toilet (92.5%). In a study of 430 adult patients conducted by Malviya VK et al reported the common risk factors for haemorrhoids are low fibre diet (73.9%), chronic constipation (64%), straining during defecation (58.8%), low physical activity (34.9%) and obesity (41.1%) of cases [6]. Inadequate fibre intake found to be one of the risk factor of haemorrhoids. Increasing the dietary fibre improve the incidence of haemorrhoids. This is probably as fibre reduced constipation, which is one of the risk factor of haemorrhoids. Straining during defecation important risk factor for haemorrhoids which resulted in complications such as bleeding per rectum, mass emerging through anus as well as prolapse. Use of mobile phone in toilet is an important risk factor found in this study. In this study, internal haemorrhoids- second degree (40.5%) and third degree (40.5%) are common types of haemorrhoids. In the study conducted by Shinde PR et al reported third degree (54%) and fourth degree (46%) of haemorrhoids. Demir et al in the study reported 50.5% of haemorrhoids are third degree and 39.6% are fourth degree disease [7]. In Maurya et al reported third degree haemorrhoids (65%) was the commonest type of haemorrhoids and Khan et al reported majority 53.3% of patients had third degree haemorrhoids in their study [8].

Conflict Of Interest: Nil

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