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A STUDY ON MANAGEMENT OF HEMORRHOID CASES ADMITTED IN SURGERY DEPARTMENT OF A TERTIARY CARE HOSPITAL IN MANDYA

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ABSTRACT

Background: Hemorrhoids are defined as the symptomatic enlargement and distal displacement of the normal anal cushions. The most common symptom of hemorrhoids is rectal bleeding associated with bowel movement. Hemorrhoids are treated conservatively, using many methods such as lifestyle modification, fiber supplement, administration of venotonic drugs etc. Nonoperative approaches include sclerotherapy and, preferably, rubber band ligation. Several surgical approaches for treating hemorrhoids have been introduced including hemorrhoidectomy and stapled hemorrhoidopexy. **Objective:** To study the management for hemorrhoid patients in department of surgery and to evaluate drug utilization pattern for hemorrhoid patients in department of surgery. **Methodology:** This was a record based retrospective study on management of hemorrhoid in hospitalized patients of surgery ward. **Result:** A total of 156 patients were evaluated of which 66.66% were males. Majority of patients fall under age group of 30-39 years (30.76%) and under grade 3 (32.69%) hemorrhoids. Majority of the patients were presented to the hospital with bleeding per rectum (25.64%). The most preferred non pharmacological treatment in our study was high fiber diet (42.08%). Antibiotics were the most administered drug in both pre-operative (16.97%) and Post-operative (40.14%) management. **Conclusion:** From this study it is concluded that majority of hemorrhoid cases were found in middle aged males. Most of the hemorrhoid patients were presented with bleeding per rectum in which grade 3 were common on the basis

of severity of hemorrhoids. There are multitudes of options for the management of hemorrhoid disease and specific treatment choice should be based on individual patients and clinical factors.

KEYWORDS: Hemorrhoid, pre-operative, post-operative, conservative therapy, antibiotics.

INTRODUCTION

Hemorrhoids are clusters of smooth muscles, and connective tissues and vascular tissues that lie along the anal canal in three columns—right anterior, right posterior and left lateral positions. Because some do not contain muscular walls, these clusters may be considered sinusoids instead of veins or arteries. Presently, the theory of sliding anal canal lining, which suggests that hemorrhoids occur when the supporting tissues of the anal cushions deteriorate, is significant. Advancing age and activities such as straining with defecation, prolonged sitting and strenuous lifting are thought to contribute to this process.[1]

Hemorrhoidal disease is one of the most common anorectal conditions encountered in daily practice by general practitioners, general surgeons, and gastrointestinal surgeons in India, it has been analyzed that about 50% of the population would have haemorrhoids at some point in their life probably by the age of 50.[2]

Hemorrhoids if untreated can be a symptom of a bigger problem and potentially pose serious medical problems.[3] Definite etiological causes are still not known but there are many factors that are found to be responsible for the development of haemorrhoids. All those factors that have definite potential and association with hemorrhoids are called as risk factors. The risk of developing hemorrhoids is considerably reduced when stools are kept soft. This can be helped in the following ways: nutrition, avoiding over-straining, going to the toilet when needed, maintaining a healthy body weight etc.

Hemorrhoids can either be internal or external. Internal hemorrhoids are deep inside the rectum and they are not visible from outside. External hemorrhoids are under the skin around the anus and visible. Since there are more sensitive nerves in this part of the body, they are normally more painful.[4]

A hemorrhoid classification system is useful to help in choosing between treatments and also to allow the comparison of therapeutic outcomes among them. Hemorrhoids are generally classified on the basis of their degree of prolapse and location. External hemorrhoids are

covered with squamous epithelium and are dilated venules of this plexus located below the dentate line, while internal hemorrhoids originate from the inferior hemorrhoidal venous plexus above the dentate line and are covered by mucosal layer. Mixed hemorrhoids (interno-external) arise both above and below the dentate line.[5]

Hemorrhoids are treated conservatively, using many methods such as fiber supplement, administration of venotonic drugs, suppository-delivered anti-inflammatory drugs and lifestyle modifications. Non- operative approaches include rubber band ligation and sclerotherapy. Several surgical approaches for treating hemorrhoids have been introduced including stapled hemorrhoidopexy and hemorrhoidectomy. Although the treatment for hemorrhoids is usually endoscopic therapy and surgery for the symptomatic hemorrhoids but most patients are thought to self-treat.[6]

MATERIALS AND METHOD

Study site

The present study was conducted at MIMS teaching hospital. It is a 500-bedded tertiary care teaching hospital having different specialties like medicine, surgery, orthopedics, pediatrics, obstetrics and gynaecology. This hospital provides specialized health care services to people in and around Mandya city and nearby villages.

Study design

This was a record based retrospective study conducted in the department of surgery MIMS, Mandya.

Study period

This study was conducted for a period of 6 months

Research period

4 months of data collection, 2 months for data analysis and write up.

Study population

Hemorrhoid case files of Surgery Department from the Medical Record Department at MIMS tertiary care teaching hospital, Mandya were used in the study.

Sample size

A total of 156 cases in a 6 month period

Sampling method

Convenience sampling

Study approval

Ethical clearance was obtained from the Institutional Ethics Committee of Mandya Institute of Medical Sciences, Mandya.

Criteria for sample collection

Inclusion criteria

Patients both male and female aged 18 year and above admitted to the surgery department with hemorrhoids.

Exclusion criteria

Pregnant women.

Source of Data and Materials

Data will be collected from hemorrhoids patients who admitted to surgery department of MIMS teaching hospital from 2018 to 2021 March by using predesigned and pretested proforma.

Study procedure

Eligible patients were enrolled based on inclusion and exclusion criteria. The data collection form haemorrhoid patients who were admitted to surgery department of MIMS teaching hospital by using predesigned and pretested proforma. This form mainly contains socio-demographic details like name, age, sex, details regarding present complaints, present history, past medical history, co-morbidities and social history, details regarding hemorrhoid treatment and other relevant data needed for present study were collected from patient's progress records, treatment chart.

Analysis

For the analysis of result simple percentage calculation was used to arrive at a conclusion of a study. The data were subjected to descriptive statistical analysis using Microsoft excel. Microsoft word and excel are used to generate graphs and tables.

RESULTS AND DISCUSSION

Distribution of patient based on gender

Total 156 patients were included during the study period. Table 1 provides the Gender distribution of the patients. The numbers of males, 104 (66.66%) were more compared to the numbers of females, 52 (33.33%).

Table 1: Distribution of patients based on gender.

Gender	Number of patients	Percentage
Male	104	66.66 %
Female	52	33.33 %

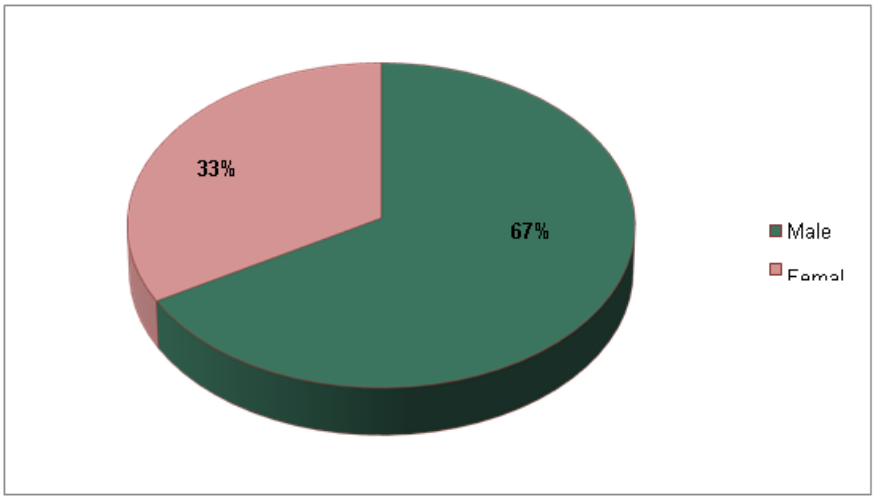

Fig. 1: Distribution of patients based on gender.

Categorization of patients based on age

In our study maximum numbers of patients with hemorrhoids were found in the age group of 30-39 years (30.76%) followed by 40-49 years (19.87%), 50-59 years (17.94%), 18-29 years (15.38%) and least number of patients were above 70 years (3.20%) of age.

Table 2: Distribution of patient based on ago.

Age group(in years)	Number of patients	Percentage
18 – 29	24	15.38 %
30 – 39	48	30.76 %
40 – 49	31	19.87%
50 – 59	28	17.94 %
60 – 69	20	12.82 %
Above 70	5	3.20 %

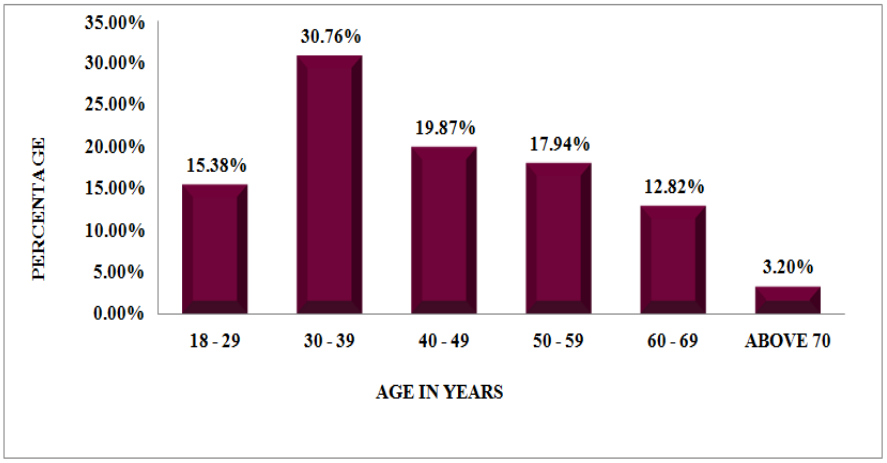

Fig. 2: Categorization of patients based on age.

Various clinical presentations of the patients

Among case study of 156 haemorrhoids patients, majority were presented with bleeding per rectum (25.64%) and mass per rectum (22.43%). The other noted presentations were painful defecation (17.30%), and perianal abscess (14.74%).

Table 3: Various clinical presentations of the patient.

Presentation	Number of patients	Percentage
Perianal abscess	23	14.74%
Painful defecation	27	17.30%
Bleeding per rectum	40	25.64%
Mass per rectum	35	22.43%
ling and mass per rectum	31	19.87%

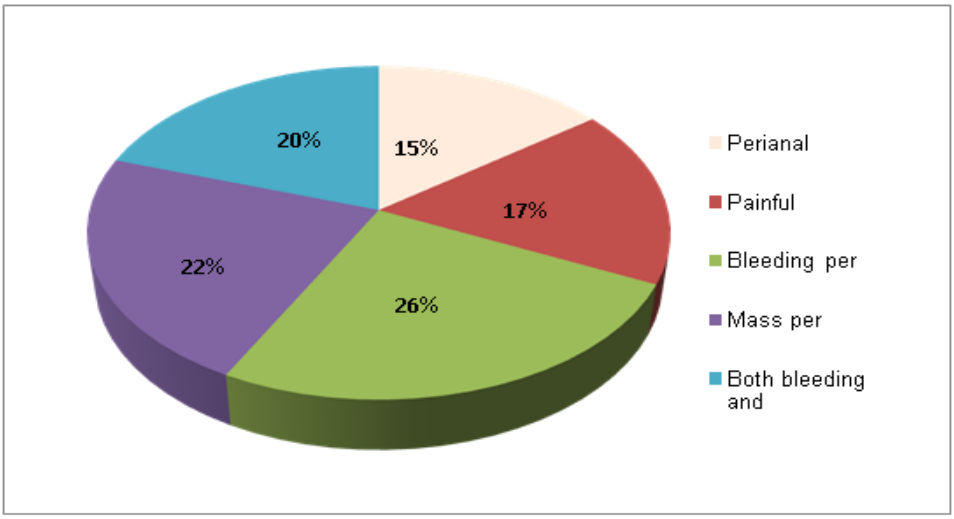

Fig 3: Distribution of patients based on presentations.

Distribution of patients based on severity of hemorrhoid

On the basis of severity of hemorrhoids**,** grade 3 (32.69%) and grade 2 (26.92%) were commonly found. Grade 4 (21.51%), grade 1 (19.23%) hemorrhoids were in minimum number.

Table 4: Distribution of patients based on severity of hemorrhoids.

Grades (hemorrhoids)	Number of Patients	Percentage
Grade 1	30	19.23%
Grade 2	42	26.92%
Grade 3	51	32.69%
Grade 4	33	21.15%

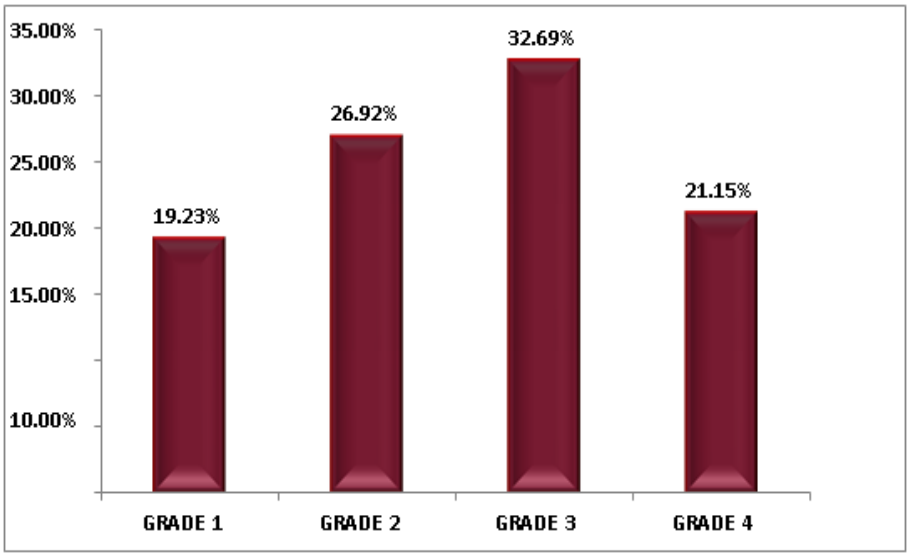

Fig. 4: Distribution of patients based on severity of hemorrhoids.

Distribution of patient based on social history

In this study, among 156 patients, 38 (24.35%) of patients were occasional alcoholic, 49 (31.41%) of patients were chronic alcoholic and 69 (44.23%) of patients were non-alcoholic and 52 (33.33%) were occasional smokers, 37 (23.71%) were chronic smokers, 67 (42.94%) were non-smokers.

Table 5: Distribution of patient based on social history.

Nature	Alcohol		Smoking	
Occasional	38	24.35%	52	33.33%
Chronic	49	31.41%	37	23.71%
None	69	44.23%	67	42.94%

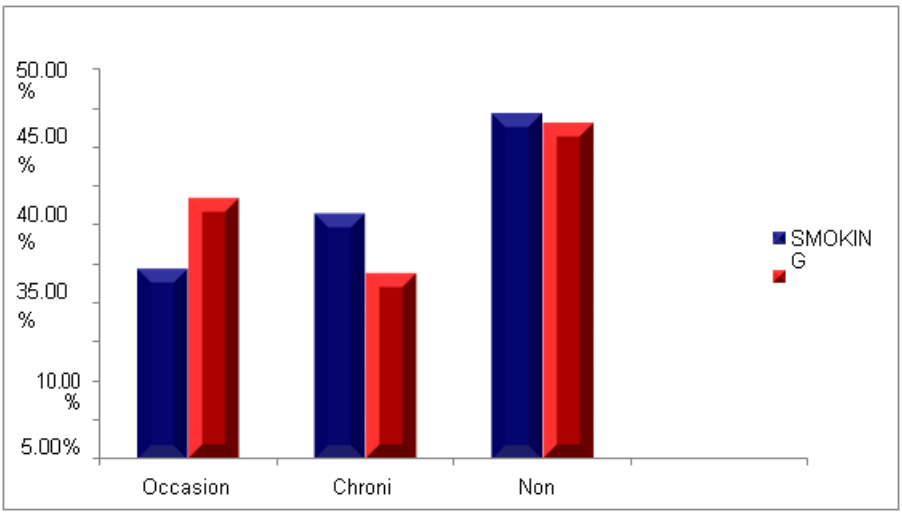

Fig. 5: Distribution of patient based on social history.

Distribution of non pharmacological management of hemorrhoids

High fiber diet (42.08%) and Sitz bath (29.58%) were the non pharmacological management advised in maximum for the hemorrhoids patients under study. Blood transfusion (16.25%) and cold saline pack (12.08%) were found to be recommended for the patients.

Table 6: Distribution of non pharmacological management of hemorrhoids.

Methods	Number of patients	Percentage
Blood transfusion	39	16.25%
Sitz bath	71	29.58%
Cold saline pack	29	12.08%
High fiber diet	101	42.08%

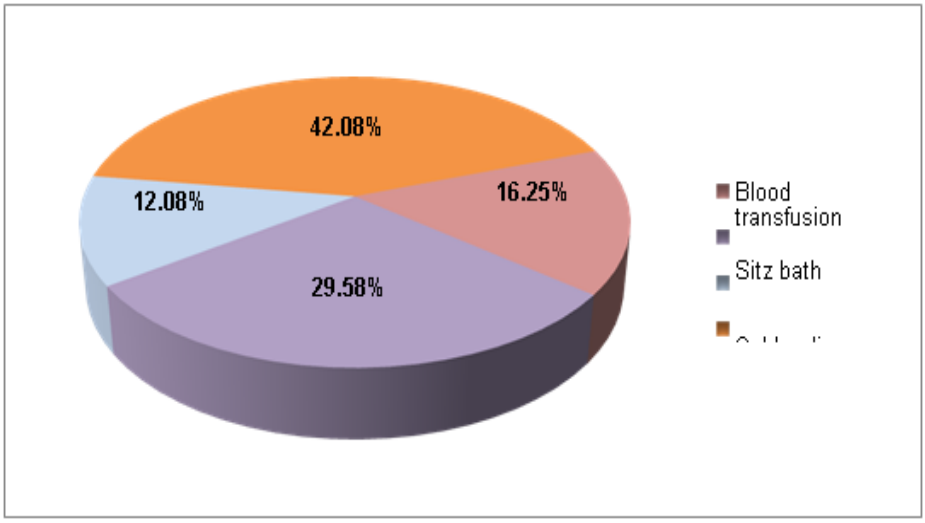

Fig. 6: Distribution of non pharmacological management of hemorrhoids.

Distribution of pharmacological management of hemorrhoids

Pre operative treatment

As Inj. TT, Inj. Xylocaine, Protoclysis enema and Tab. Anxit, these are being considered as a pre operative instruction, this is being administered in every patient before surgery in our study. Apart from these instruction, antibiotics(16.97 %) were the most administered drug of choice for the patients in the pre operative management.

Table 7: Class of drugs prescribed in Pre-operative management.

Class of drugs	Name of Drugs	Number of Drugs	Total	Percentage
Antibiotics	Ceftriaxone	28	186	16.97%
	Cefotaxime	47		
	Cefixime	3		
	Cefadroxil	1		
	Amikacin	26		
	Gentamicin	4		
	Ciprofloxacin	18		
Analgesics	Ofloxacin	3	115	10.49%
	Metronidazole	50		
	Ornidazole	4		
	Linezolid	2		
	Diclofenac	62		
	Tramadol	31		
	Acetaminophen	9		
	Acp sp	13		
Local anaesthetics	Xylocaine	123	133	12.13%
	Xylocaine gel	6		
	Smuth ointment	4		
Laxatives	Syrup cremaffin	31	50	4.56%
	Tab.gerbisa	16		
	Syrup emty	3		
Antacids	Ranitidine	78	101	9.21%
	Pantoprazole	23		
Inj .tt		123	123	11.22%
Proctoclysis Enema		123	123	11.22%
Ivf	Ns and rl	43	43	3.92%
Benzodiazepines	Tab.anxit	123	123	11.22%
Nutritional suppliment	Cap bc	23	45	4.10%
	Tab. Fsfa	11		
	Tab abf	3		
	Tab optineuron	4		
	Tab gmb	2		

	Tab beplex Forte	2		
Thers	Tab.hermin	5	54	4.92%
	Tab.hemocyl	6		
	Dicyclomine	4		
	Inj hemsyl	15		
	Albendazole	18		
	Tab.cpm	3		
	Tab.avil	3		

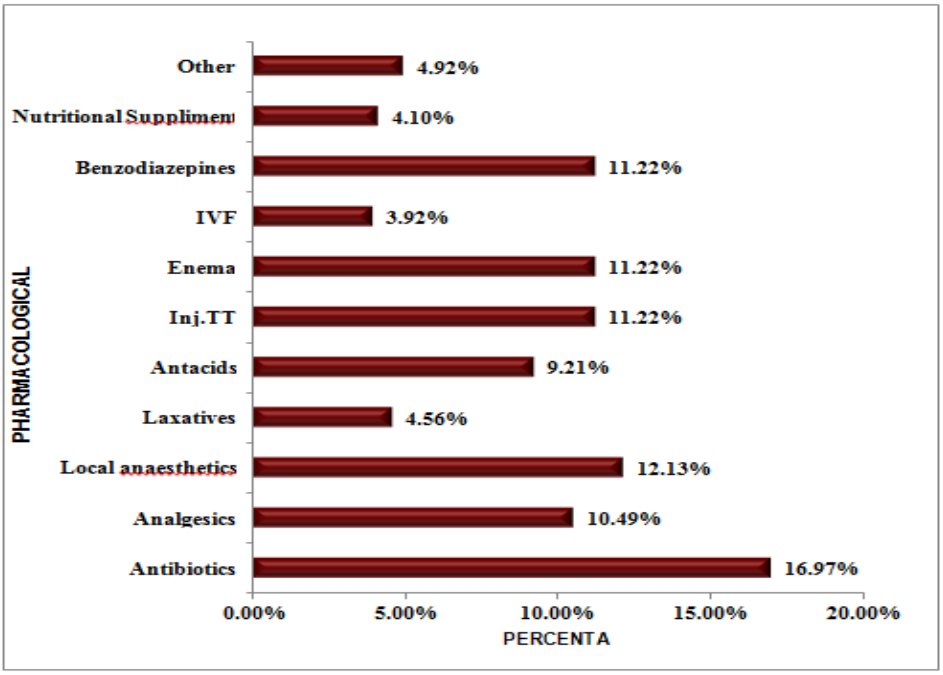

Fig. 7: Drugs prescribed in Pre-Operative management.

Post operative treatment

In our study 123 patients underwent surgery, by the analysis of our data, it was found that the maximum number of patients were administered with antibiotics (40.14%) in which Metronidazole was prescribed for 96 patients. This was followed by analgesic (17.98%) and antacids (14.88%).

Table 8: Drugs prescribed in post-operative management.

Class of drugs	Name of drugs	Number of drugs	Total	Percentage
Antibiotics	Ceftriaxone	41	375	40.14%
	Cefotaxime	54		
	Cefixime	44		
	Cefadroxil	4		
	Amikacin	55		
	Gentamicin	2		

	Ciprofloxacin	41		
	Ofloxacin	18		
	Metronidazole	96		
	Ornidazole	18		
	Linezolid	2		
Analgesics	Diclofenac	104	168	17.98%
	Tramadol	28		
	Acetaminophen	28		
	Acp sp	8		
Local anaesthetics	Lox 5% gel	6	24	2.56%
	Xylocaine gel	16		
	Anorelief	2		
Laxatives	Syrup cremaffin	34	50	5.35%
	Tab.gerbisa	16		
Antacids	Ranitidine	107	139	14.88%
	Pantoprazole	30		
	Omeprazole	2		
Ivf	Ns and rl	103	103	11.02%
Nutritional suppliment	Cap bc	3	19	2.03%
	Tab. Fsfa	8		
	Tab optineuron	2		
	Vitamin c	2		
	Syrup bevon	4		
Others	Tab.hermin	2	56	5.99%
	Tab.hemocyl	7		
	Dicyclomine	2		
	Inj hemsyl	12		
	Ondansetron	31		
	Tab.cpm	2		

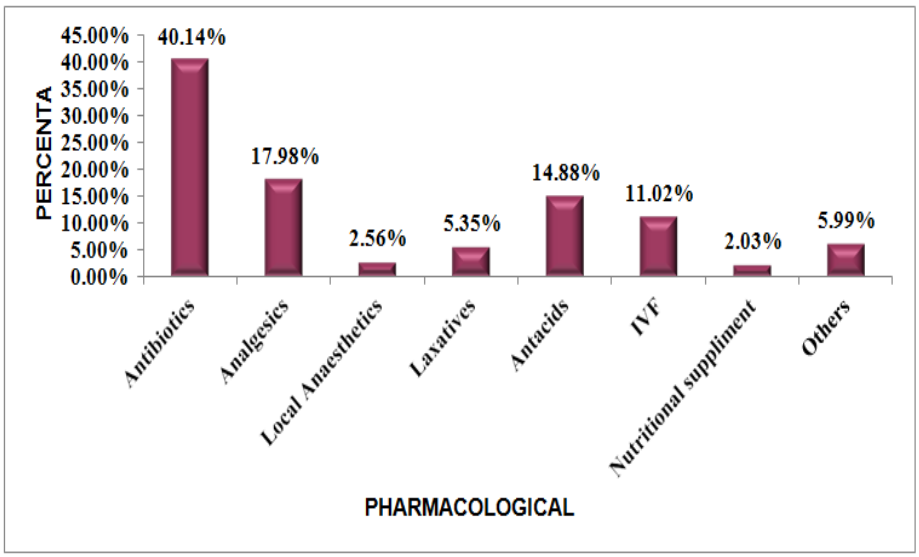

Fig. 8: Drugs prescribed in Post-Operative management.

Conservative management

Most of the hemorrhoids patients presented to the hospital underwent surgery, a total of 21.15% of patients had undergone conservative therapy, of which antibiotics were the drug of choice (24.65%) and the least preferred were local anaesthetic (5.58%).

Table 9: Class of drugs prescribed in conservative management.

Class of drugs	Name of drugs	Number of drugs	Total	Percentage
Antibiotics	Ceftriaxone	11	53	24.65%
	Cefotaxime	10		
	Amikacin	8		
	Ciprofloxacin	5		
	Ofloxacin	3		
	Metronidazole	12		
	Ornidazole	3		
	Azithromycin	1		
Analgesics	Diclofenac	17	28	13.02%
	Tramadol	4		
	Acetaminophen	6		
	Acp sp	1		
Local anaesthetics	Xylocaine gel	8	12	5.58%
	Smuth ointment	4		
Laxatives	Syrup cremaffin	10	16	7.44%
	Tab.gerbisa	3		
	Syrup lactulose	1		
	Syrup duphalac	1		
	Borbulk powder	1		
Antacids	Ranitidine	25	33	15.34%
	Pantoprazole	8		
Nutritional supplements	Cap bc	7	29	13.48%
	Tab. Fsfa	13		
	Tab.orofex xt	1		
	Vitcofol	4		
	Tab optineuron	2		
	Tab.beplex Forte	2		
Ivf	Ns and rl	17	17	7.09%
Other	Ondansetron	5	27	12.55%
	Albendazole	9		
	Tab.hemocyl	5		
	Dicyclomine	2		
	Inj hemsyl	6		

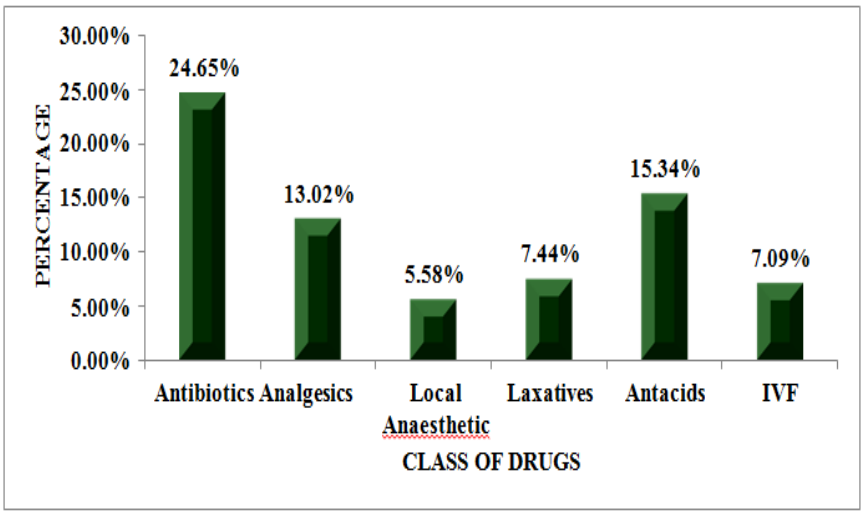

Fig. 9: Class of drugs prescribed in post-operative management.

CONCLUSION

Our study concludes that majority of hemorrhoid cases were found in middle aged males. Most of the hemorrhoid patients were presented with bleeding per rectum and mass per rectum in which grade 3 and grade 2 were common on the basis of severity of haemorrhoids. Majority of the patients were presented to the hospital with bleeding per rectum (25.64%).The most preferred non pharmacological treatment in our study was high fiber diet (42.08%). Antibiotics were the most administered drug in both pre-operative (16.97%) and Post-operative (40.14%) management. There are multitudes of options for the management of hemorrhoid disease and specific treatment choice should be based on individual patients and clinical factors. Clinical pharmacists with other health care professionals play a crucial role in monitoring, patient counseling and management of hemorrhoids.

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CONFLICT OF INTEREST

The authors declared no conflict of interest.

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