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Drug Utilisation Pattern of Analgescis in Haemorrhoids: A Retrospective Analysis

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ABSTRACT:

Background: Haemorrhoids 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. **Objectives:** To analyse the drug utilisation pattern of analgesics in haemorrhoids patients in department of surgery. To analyse the patient occupational status. **Materials and Methods:** The study was conducted in the surgery department at GCMCH in Chidambaram, India. After defining the inclusion and exclusion criteria ,65 cases were analysed, collected and examined. Patients diagnosed with any kind of haemorrhoids were admitted to the surgery department for further management. Every outcome was documented in the Excel sheet created in Microsoft. For the analysis of result simple percentage calculation was used to arrive at conclusion. **Results:** Our study includes 65 cases with haemorrhoids based on the inclusion and exclusion criteria. The gender distribution study indicated that females 36(55.38%) are more when compared with males 29(44.61%). Most of the cases analysed were presented with the bleeding and mass descending per rectum. Our study showed maximum number of patients under the age group of 31- 50 (43.07%). GRADE III haemorrhoids was the most predominant 21(32.30%) among the subjects. Upon observing the occupational status, the patients who were absent from physical activity had a higher risk of haemorrhoids 20(30.76%). **Conclusion:** Our study concluded that the prescribed drugs are appropriate and rational for the diagnosis. Distribution had shown predominance in females, between the age group 31-50 and higher risk among subjects with absence of physical activity. The analgesics are provided safety and efficacy.

Keywords: Haemorrhoids Analgesics, Lidocaine, Acetaminophen

INTRODUCTION:

Haemorrhoids 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 haemorrhoids 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].

Haemorrhoid 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 analysed that about 50% of the population would have haemorrhoids at some point in their life probably by the age of 50[2]. Haemorrhoids 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 haemorrhoids are called as risk factors. The risk of developing haemorrhoids 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. Haemorrhoids can either be internal or external. Internal haemorrhoids are deep inside the rectum and they are not visible from outside. External haemorrhoids 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 haemorrhoids classification system is useful to help in choosing between treatments and also to allow the comparison of therapeutic outcomes among them. Haemorrhoids are generally classified on the basis of their degree of prolapse and location. External haemorrhoids are covered with squamous epithelium and are dilated venules of this plexus located below the dentate line, while internal haemorrhoids originate from the inferior haemorrhoidal venous plexus above the dentate line and are covered by mucosal layer. Mixed haemorrhoids (interno-external) arise both above and below the dentate line.[5]

Haemorrhoids 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 haemorrhoids have been introduced including stapled haemorrhoidsopexy and haemorrhoidsectomy. Although the treatment for haemorrhoids is usually endoscopic therapy and surgery for the symptomatic haemorrhoids but most patients are thought to self-treat.[6]

AIMS AND OBJECTIVES:

1. To analyse the drug utilisation pattern of analgesics in haemorrhoids patients in department of surgery.
2. To analyse the patient occupational status

MATERIALS AND METHODS:

The present study was conducted in the surgery department at Government Cuddalore Medical College and Hospital in Chidambaram, India. After defining the inclusion and exclusion criteria ,65 cases were analysed out of 70 collected and examined cases. Patients diagnosed with any kind of haemorrhoids are admitted to the surgery department for further management. Both male and female patients with haemorrhoids aged 18 and above are analysed. Patient who got admitted to intensive care units, elderly patients over the age of 80, pediatric patients between the ages of 0-12, pregnant women are excluded. Every outcome was documented in the Excel sheet in Microsoft. For the interpretation of results, simple percentage calculation was used to arrive at conclusion of study.

RESULTS:

TABLE 1: Gender wise distribution:

S.No	Gender	Frequency	Percentage
1	Male	29	**44.61%**
2	Female	36	**55.38%**

Out of 65 cases included in the study, indicated that **females 36(55.38%)** are more when compared with **males 29(44.61%).**

TABLE 2: Age wise distribution:

S.No	Age groups	Frequency	Percentage
1	18 - 30	22	**33.84%**
2	31 - 50	28	**43.07%**
3	51 -70	13	**20%**
5	71 -80	2	**3.07**

Our study showed maximum number of patients with haemorrhoids under the age group of **31- 50 (43.07%)** followed by **18-30 (33.84%),51-70 (20%)** and least number of patients were between the age group **71-80 (3.07%).**

TABLE 3: Severity of haemorrhoids:

S.No	Grades of heamorrhoids	No. of cases	Percentage
1	GRADE I	15	**23.07%**
2	GRADE II	19	**29.23%**
3	GRADE III	21	**32.30%**
4	GRADE IV	10	**15.38%**

Our study revealed that internal and external haemorrhoids are classified into 4 groups. The higher rate of patients are with the **GRADE III [Prolapse on straining need manual reduction] 21(32.30%),** followed by **GRADE II [Prolapse on straining spontaneous reduction] 19(29.23%)**, **GRADE I [Bleeding without prolapse]15 (23.07%)** and the lesser rate are **GRADE IV [Irreducible haemorrhoids]10 (15.38%).**

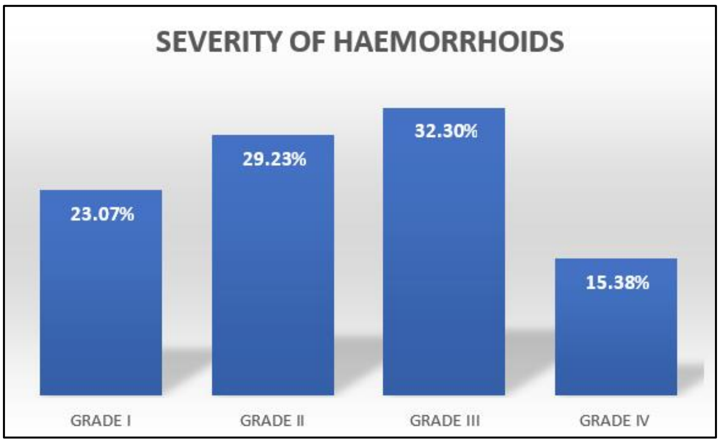

Figure 1: Severity of haemorrhoids

TABLE 4: Occupational status of the patients:

S.NO	Occupation	No. of. cases	Percentage
1	Teacher	8	**12.30%**
2	IT Jobs	15	**23.07%**
3	Drivers	17	**26.15%**
4	Physical workers	5	**7.69%**
5	Absence of physical activity	20	**30.76%**

Upon observing the occupational status, the patients who were **absent from physical activity** had a higher risk of haemorrhoids **20(30.76%),** followed by **drivers 17(26.15%), IT jobs 15(23.07%)**, and the fewest number of **teachers 8 (12.30%)** and **physical workers 5(7.69%)**. This indicates that haemorrhoids are incidented at an increased rate by prolonged sitting.

TABLE 5: Drug utilisation pattern of analgesics:

S.NO	ROA	CLASS OF DRUGS	DRUGS	NO. OF DRUGS	PERCENTAGE OF SPECIFIC DRUG
1	Topical	NSAIDs	Diclofenac gel	22	**6.50%**
			Ketoprofen gel	15	**4.43%**
			Capsaicin cream	16	**4.73%**
			Piroxicam gel	28	**8.28%**
			Sulindac cream	7	**2%**
2	Parental IM/IV	Local anaesthetics	Lidocaine	40	**11.8%**
		Opioid analgesics	Tramadol	11	**3.25%**
			Morphine	6	**1.77%**
		NSAIDs	Diclofenac	28	**8.28%**
			Acetaminophen	14	**4.14%**
		Glucocorticoid	Dexamethasone	12	**3.55%**
			Prednisolone	9	**2.66%**
3	Oral	NSAIDs	Acetaminophen	34	**10%**

			Diclofenac	32	**9.46%**
			Aceclofenac	29	**8.57%**
			Ibuprofen	19	**5.62%**
		Glucocorticoid	Dexamethasone	10	**2.9%**
			Prednisolone	4	**1.18%**
Total no. of drugs				338	**100%**

In this study the drug utilization of analgesics, there were classified based on the route of administration and class of drugs. The total no of drugs prescribed were 338. The maximum times of drugs prescribed are **parental Lidocaine (11.8%),** followed **by oral Acetaminophen (10%), Diclofenac (9.46%), Aceclofenac (8.57%)** and **topical was piroxicam gel (8.28%).** The minimum prescribed drug were **Oral Prednisolone (1.18%) followed** by **Parental Morphine (1.77)** and **Topical Sulindac cream (2%).**

DISCUSSION:

Our study includes 65 cases with haemorrhoids based on the inclusion and exclusion criteria. Out of 65 cases included in the study, indicated that **females 36(55.38%)** are more when compared with **males 29(44.61%).** Our study showed maximum number of patients with haemorrhoids under the age group of **31- 50 (43.07%)** followed by **18-30 (33.84%),51-70 (20%)** and least number of patients were between the age group **71-80 (3.07%).** Our study revealed that internal and external haemorrhoids are classified into 4 groups. The higher rate of patients are with the **GRADE III [Prolapse on straining need manual reduction] 21(32.30%),** followed by **GRADE II [Prolapse on straining spontaneous reduction] 19(29.23%)**, **GRADE I [Bleeding without prolapse]15 (23.07%)** and the lesser rate are **GRADE IV [Irreducible haemorrhoids]10 (15.38%).** Upon observing the occupational status, the patients who were **absent from physical activity** had a higher risk of haemorrhoids **20(30.76%),** followed by **drivers 17(26.15%), IT jobs 15(23.07%)**, and the fewest number of **teachers 8 (12.30%)** and **physical workers 5(7.69%)**. This indicates that haemorrhoids are incidented at an increased rate by prolonged sitting. In this study the drug utilization of analgesic, there were classified based on the route of administration and class of drugs. The total no..of drugs prescribed 338. The maximum times of drugs prescribed are **parental Lidocaine (11.8%)** followed **by Oral Acetaminophen (10%), Diclofenac (9.46%), Aceclofenac (8.57%)** and **topical** were **piroxicam gel (8.28%).** The minimum of prescribed drug were **Oral Prednisolone (1.18%) followed** by **Parental Morphine (1.77)** and **Topical Sulindac cream (2%).** Antibiotics were the most administrated drug in both pre and post operative for the management of haemorrhoids. There are multiple options for the management of haemorrhoid 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 counselling and management of haemorrhoids. Patient counselling includes, patients are adviced to take the high fibre diet and to intake plenty of fluids. The prescribed drugs are appropriate for the diagnose and given rationally.

CONCLUSION:

Our study concluded that the prescribed drugs are appropriate and rational for the diagnosis. Distribution had shown predominance in females, between the age group 31-50 and higher risk among subjects with absence of physical activity. The analgesics are provided safety and efficacy.

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