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## Demography, Epidemiology, Clinical Presentations, Diagnoses and Management of Various Anorectal Diseases: An Article Review

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### Abstract

Anorectal conditions are among the common diseases causing significant patient discomfort and affecting their quality of life. Their prevalence is higher than that seen in clinical practice, as people seem to avoid seeking medical attention. Various anorectal disorders, their demographic profile, epidemiology, clinical presentations, diagnoses, and management have been emphasized by this review of 6 different articles. The articles are observational studies about patterns and presentations of various anorectal disorders, with study subjects ranging from 109 to 629 patients, published between 2015 and 2019. Five articles have been studied in India and one in Sudan. The data retrieved from each article is comparable to the previous existing studies, although certain variations and differences can be made out among them. The specific areas of focus include: age & sex distribution, predisposing factors, common presenting symptoms and clinical features, patterns of various anorectal disorders and management (surgical/conservative) and outcomes. Anorectal diseases commonly affects the age of 15 to 50 years, with male predominance. Common predisposing factors include mixed/non-vegetarian diet, low fibre diet, constipation, poor anal hygiene, pregnancy and lack of physical activity/exercise. Common anorectal symptoms include anal pain with bleeding per rectum, difficulty in passing stools, mass per anum and pruritus. Distribution of anorectal cases varies, with haemorrhoids being commonest and fissure-in-ano; followed by fistula-in-ano and pruritus ani. Majority of haemorrhoids are in 2<sup>nd</sup> or 3<sup>rd</sup> degree. Fissure-in-ano mostly occurs in posterior midline; commonly acute type. Surgery is the most definitive management for most perianal disorders with minimum recurrence.

**Keywords:** Anorectal diseases; Fissure-in-ano; Haemorrhoids; Fistula-in-ano; Constipation

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### Introduction

Anorectal conditions are among the common diseases causing significant patient discomfort and affecting their quality of life. Their prevalence is higher than that seen in clinical practice, as people seem to avoid seeking medical attention. Various anorectal disorders, their demographic profile, epidemiology, clinical presentations, diagnoses, and management have been emphasized by this review of 6 different articles. The articles are observational studies about patterns and presentations of various

anorectal disorders, with study subjects ranging from 109 to 629 patients, published between 2015 and 2019. The articles include studies [1-6]. The data retrieved from each article is comparable to the previous existing studies, although certain variations and differences can be made out among them. The specific areas of focus include: Age & sex distribution, predisposing factors, common presenting symptoms and clinical features, patterns of various anorectal disorders and management (surgical/conservative) and outcomes.

## Literature Review

A study by Shah Alam et al. reveals that fissure, haemorrhoids, and pruritus ani were responsible for more than 81% of anorectal complaints [1]. Commonly affected age groups were 41-50 years followed by 31-40 years, with male predominance (70.13%). Various risk factors like non-vegetarian/mixed diet, low socioeconomic status, prolonged straining on defecation were noted. Common complaints were anal pain and bleeding per rectum, followed by anal pain only and mass during defecation. Common anorectal conditions in the decreasing frequency were: fissure-in-ano (36.20%), haemorrhoids (33.94%), fistula-in-ano and prostaticitis. Anal fissures were mostly seen in posterior midline (85%), anterior midline (12.5%) and lateral (2.5%).

A study of 416 subjects with anorectal complaints by Khan et al. showed a prevalence of fissure-in-ano as 15.62% (65) with a male preponderance (76.20%) [2]. Five among them had co-existing haemorrhoids. Most affected age group was 15-40 years. The Commonest symptom was anal pain with bleeding per rectum. About half the patients with anal fissures were overweight & obese. Common modifiable risk factors were constipation, low fibre diet and lack of physical activity with sedentary lifestyle. It is noteworthy that the most common cause of non-healing of fissure is the spasm of internal anal sphincter. Fissure-in-ano stands third in prevalence of anorectal conditions after chronic constipation and haemorrhoids. Incidence of fissure-in-ano in general population is given as 1 in 350 adults.

Another study by Ranjit Chaudhary showed a prevalence of anal fissures as 17.81% [3]. The mean SD age of patients was 38.27 years with a male predominance (69.63%). Risk factors like mixed (non-veg) diet, low fibre diet, constipation, and lack of physical activity/exercise had a higher prevalence of fissures. About 45% of patients were overweight and obese. The Commonest symptom was bleeding PR with anal pain; and most affected age group was 18-40 years.

A prospective study involving 107 anorectal patients by Osman Elriah et al. had a mean age of 38.6±13.7 years [4]. Maximum patients (78.5%) were in third to fifth decades. Two-third patients were males with a male:female ratio of 1.9:1. The common symptom triad in 72% patients were anal pain, constipation, and difficulty in passing stools, followed by bleeding PR. Distribution of anorectal disorders was: Haemorrhoids (61.7%) >fissure-in-ano (14%) >fistula-in-ano (10.3%). 72.7% of haemorrhoids were either 2nd or 3rd degree. About 93% of fissures were acute; most common location was posterior midline (86.7%). 91% of fistulas were low-type; anterior location was common and majority were simple fistula-in-ano. Overall, 68.2% patients were managed surgically. Hemorrhoids were treated with ligature/closed/open

hemorrhoidectomy. Conservative treatment had cure rates of 87% in acute anal fissures and 50% in chronic anal fissures. Lateral Internal Anal Sphincterotomy (LIAS) is considered as "gold-standard" and first-line treatment for chronic fissure-in-ano. Both LIAS (69%) and anal dilation (30.8%) were performed for treating fissures in this study. Two-thirds of fistulas were treated with fistulectomy and others with fistulotomy & Seton. There was no mortality although 6.1% developed complications like intractable post-operative pain. Most patients were discharged within 24 hours on a day-care basis. Prevalence of malignant anorectal conditions was 0.9%.

A study by Sharma et al. showed the common anorectal symptoms of bleeding, pain, protrusion and itching [5]. Hemorrhoids (49%) and fistula-in-ano (27%) were commonest anorectal conditions, mostly affecting the age group 18-45 years. Predisposing factors were constipation>poor hygiene>chronic straining>pregnancy & others. 96% patients were surgically managed with minimal recurrence (2%), and no mortality. Studies suggest that surgery is the most definitive treatment for most perianal disorders, with minimum recurrence.

The prevalence of fissure-in-ano was 30.7% among various anorectal ailments, according to a study by Varadarajan et al. [6]. There was a slight male preponderance in this study. Common symptoms were: painful defecation (86%), bleeding PR (62%), constipation, followed by pruritus and discharge. Most affected age group was 31-40 years. Among fissures, 76% were acute and 24% were chronic; commonly located on posterior midline (98%). Documented causes for fissure-in-ano include passage of hard stools, poor anal hygiene, spicy food intake and iatrogenic causes.

## Discussion and Conclusion

There is a definite scope to perform anorectal studies on a larger population scale for better evaluation, methodologies and outcomes. Anorectal diseases commonly affects the age of 15 to 50 years with a male preponderance. Common predisposing factors include mixed/non-vegetarian diet, low fibre diet, constipation, poor anal hygiene, pregnancy and lack of physical activity/exercise. Common anorectal symptoms include anal pain with bleeding per rectum, difficulty in passing stools, mass per anum and pruritus. Distribution of anorectal cases varies, with haemorrhoids being commonest (34-62%) and fissure-in-ano (14-36%); followed by fistula-in-ano and pruritus ani. Majority of haemorrhoids are in 2nd or 3rd degree. Fissure-in-ano mostly occurs in posterior midline (85-98%); commonly acute type (76-93%). Surgery is the most definitive management for most perianal disorders with minimum recurrence.

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