

## **Spectrum of Adult Anorectal Diseases in Delta State University Teaching Hospital, Oghara**

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### **Abstract:**

**Background:** Presentations of anorectal diseases are relatively common in surgical clinics. This paper documents the spectrum of adult anorectal diseases and highlights the most common forms of presentation.

**Methods:** This was a 5-year prospective study between November 1, 2014 and October 31, 2019 among non-trauma patients older than 18 years who presented to the surgical outpatient clinics, emergency room or referred by other units with anorectal complaints. Data was analyzed using the Statistical Package for Social Sciences (IBM SPSS, version 23).

**Results:** Out of 206 patients evaluated, 117 (56.8%) were males, while 89 (43.2%) were females giving a M:F ratio of 1.3:1. The mean age was 48±13.7 years. Majority of the patients (142, 68.9%) were between 30-59 years old.

The most common presenting complaint was rectal bleeding in 148 patients (71.8%) and the least was fecal incontinence in 8 patients (3.9%).

**Keywords:** Anorectal disease, Anorectal disorders, Anorectal conditions, hemorrhoids.

The most common diagnosis was hemorrhoids (88, 42.7 %) followed by rectal carcinoma (62, 30.1%), fistula-in-ano (29, 14.1%) and anal cancer (24, 11.7%). Among patients with rectal and anal carcinoma, hemorrhoids occurred in 83 (40.3%,  $p=0.289$ ) and 29 (29.2%,  $p=0.527$ ) patients respectively while rectal bleeding occurred in 79.0% of patients with rectal carcinoma ( $p=0.132$ ) and 87.5% of patients with anal carcinoma ( $p=0.07$ ).

**Conclusion:** Rectal bleeding is the most common anal symptom while hemorrhoids is the most common anorectal disease condition in our environment. Patients older than 30 years in our environment who present with rectal bleeding or hemorrhoids should be further evaluated to rule out anal or rectal carcinoma, particularly rectal carcinoma.

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## Introduction

Anorectal diseases can be discomforting, debilitating with an insidious, often times chronic presentation, with or without complications. The prevalence of anorectal diseases varies from 12% to 40.5% with a male to female ratio of 1.2:1 to 2.5:1<sup>1-5</sup>. Cancers of the anorectum constitute 4.2% of all cancers worldwide<sup>6</sup>. Only about 2% to 25.2% of patients with anal diseases present themselves to a physician because of an anal symptom<sup>7,8</sup>. This is because majority of patients do not feel comfortable discussing their symptom because of the body region affected and the reluctance in exposing that part for clinical examination<sup>9</sup>.

Symptomatically, rectal bleeding, anal pain and perianal discharge constitute the most common symptoms of benign anorectal diseases<sup>10,11</sup>. Common benign conditions been documented including pruritus, fistula-in-ano, hemorrhoids and fissures<sup>11,12</sup>. Presentations of malignant disease have been well elucidated<sup>13-15</sup>.

The pointers to further evaluation with colonoscopy in a patient with an anorectal condition include rectal bleeding in older age, weight loss, iron deficiency anemia, family history of inflammatory bowel disease or colorectal cancer<sup>10,16,17</sup>. It has been observed that most patients attempt self-medication for up to one year prior to presentation resulting in advance disease presentation<sup>18</sup>. This study documents the spectrum of anorectal diseases in our environment and highlight the most common symptoms encountered.

**Methods:** This is a 5-year prospective study carried out between November 1, 2014 and October 31, 2019 at the Delta State University Teaching Hospital, Oghara. All patients older than 18 years presenting through the surgical outpatient clinics, emergency room or referred by other units within the hospital with anorectal complaints were included. Patients younger than 18 years were excluded. Trauma related patients were also excluded. Data were entered into a computer and analyzed using the Statistical Package for Social Sciences (IBM SPSS, version 23). The parameters evaluated include age, symptoms, signs and diagnosis.

**Results:** Out of 206 patients evaluated, 117 (56.8%) were males, while 89 (43.2%) were females giving a male:female ratio of 1.3:1. The mean age was 48±13.7 years. Majority of the patients (142, 68.9%) were between 30-59 years old (Table 1). The incidence of adult anorectal diseases was 2.83%.

**Table 1: Age distribution of 206 patients presenting with diseases of the anorectum in adults**

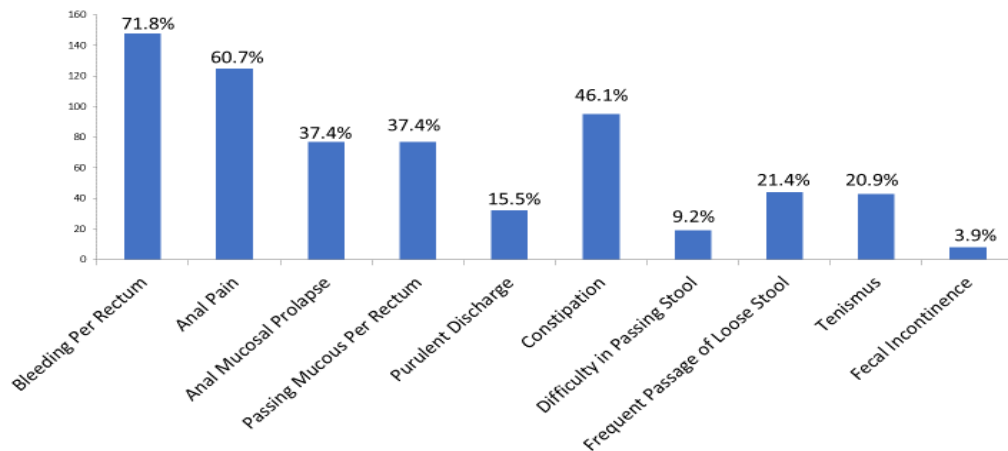
Age (years)	Frequency	Percentage
20 – 29	17	8.3
30 – 39	41	19.9
40 – 49	53	25.7
50 – 59	48	23.3
60 – 69	33	16
> 70	14	6.8
Total	206	100

*Mean age = 48.1±13.7 years*

The major presenting complain was bleeding per rectum in 148 patients (71.8%), followed by anal pain in 125 patients (60.7%) and

constipation in 95 patients (46.1%). The least presenting complain was fecal incontinence in 8 patients (3.9%) (Fig. 1).

Figure 1: Presenting Complaints

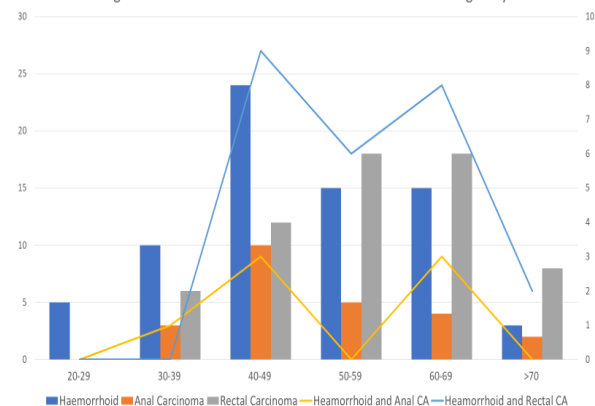


The most common anorectal condition diagnosed was hemorrhoids in 88 patients (42.7 %) among whom 3<sup>rd</sup> degree hemorrhoids was the most common (38, 18.4%), followed by 1<sup>st</sup> degree hemorrhoids in 21 patients (10.2%). The least was 4<sup>th</sup> degree hemorrhoids (12, 5.8%).

Table 2: Diagnosis of Patients seen with Anorectal diseases (n=206)

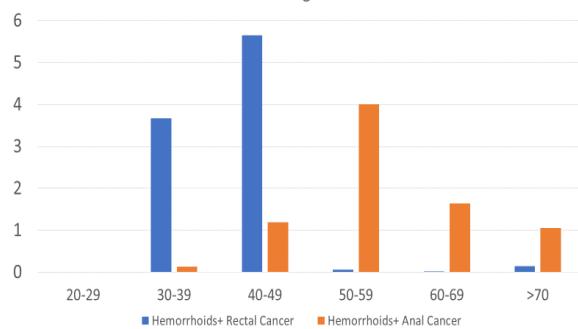
Diagnosis	Total Number (n=206)	Percentage (%)
Hemorrhoids	88	42.7
Fissure-in-ano	3	1.5
Fistula-in-ano	29	14.1
Rectal carcinoma	62	30.1
Anal carcinoma	24	11.7
Total	206	100.0

Figure 2: Combined Patients with both hemorrhoids and Malignancy



The next most common anorectal diagnosis was rectal carcinoma which was seen in 62 patients (30.1%) followed by fistula-in-ano (29, 14.1%) and anal cancers (24, 11.7%)(Table 2). Among patients with rectal and anal carcinoma, hemorrhoids occurred in 40.3% ( $p=0.289$ ) and 29.2% ( $p=0.527$ ) patients respectively while rectal bleeding occurred in 79.0% of patients with rectal carcinoma ( $p=0.132$ ) and 87.5% of patients with anal carcinoma ( $p=0.07$ ).

Figure 3: Likelihood Ratio of a Patient with Rectal or Anal Carcinoma Presenting with Hemorrhoids



Among the study population, 192 (93.2%) patients indicated that they were shy to present in hospital for examination while 138 (67.0%) stated that they were afraid of malignancy as diagnosis.

## Discussion

This 5-year prospective study that involved 206 patients seen in our institution has enabled us to show that, patients with adult anorectal diseases in our environment are usually males with a mean age of  $48 \pm 13.7$  years.

Diseases of the anorectum are relatively common in surgical practice presenting either as benign or malignant conditions. Benign conditions account for the majority.<sup>4</sup> The overall incidence of anorectal disease ranges from 12% to 40.5% as reported by western literature with a male preponderance<sup>1</sup>. The incidence of cases in Nigeria reporting to the physician appear to be much lower than reported in the western world<sup>3,5</sup>. The incidence rate of adult anorectal diseases at the Delta State University Teaching Hospital is 2.83%. This

low incidence tallies with the earlier report by Ani and Igwe et al<sup>3,19</sup> and it is lower than western figures<sup>1</sup>. This might stem from the patient being shy to present in hospital for examination due to the part of the body affected.

The peak incidence of anorectal diseases in our study is 40 – 49 years, a decade later than an earlier reported incidence by Igwe et. al. from the southern Nigeria and this may not be unconnected with increasing life expectancy and dietary modifications<sup>3</sup>.

The most common diagnosis was hemorrhoids presenting with rectal bleeding similar to findings from other centers within Nigeria<sup>10,16,17,20</sup>. This contrasts with the findings of Pigot et. al. where anal pain was the predominant symptom<sup>2</sup>. Majority of the patients (71.8%) delayed in presentation until they started bleeding. Reasons why patients with hemorrhoids would commonly not present early in hospital include middle age, perception about the illness, perception of self-medication.<sup>21</sup> This delay in presentation until rectal bleeding occurs also buttresses the tendency to shy away from examination of the anorectal region which may explain the reason why majority of our patients do not present until the red flag symptom of rectal bleeding occurs.

The next most common disease that was diagnosed after hemorrhoids was rectal carcinoma. The association of hemorrhoids with rectal carcinoma may result from the valveless nature of the hemorrhoidal veins.

There is a dual peak incidence in our patients with malignancy (rectal and anal) presenting with hemorrhoids (Fig. 2). The reason for this is unclear. However, the likelihood ratio for such a hemorrhoid to be associated with rectal or anal carcinoma is more in favour of rectal than anal carcinoma (Fig. 3).

### Conclusion

The most common anorectal symptom in our environment is rectal bleeding. Hemorrhoids is the most common cause and it is often associated with rectal cancer. Thus, patients older than 30 years of age who present with rectal bleeding or hemorrhoids should be further evaluated to rule out anal or rectal carcinoma.

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