Austin Journal of Gastroenterology

Open Access

Austin Publishing Group

Research Article

Anus Diseases in Proctology Consultation in the Yaounde University Teaching Hospital (Cameroon): Male Predominance, Taboo and Neglected Diseases

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Received: June 05, 2015; **Accepted:** September 04, 2015; **Published:** September 09, 2015

Abstract

Background/Aims: In Cameroon, there are several taboos around anus diseases: male homosexuality, traditional medical problem, and humiliation. The aim of this retrospective study was to describe the demographic, clinical presentation, and pathological features of anus diseases in Yaounde.

Methods: Records of 820 outpatients with anorectal complaints seen in proctology consultation with endo-anal examination, from January 2008 to June 2014 were reviewed. Information collected included age, gender, complaints, and anus diseases.

Result: There were 589 men (71.8%) and 231 women (28.2%). Patients with anus diseases were older than those without (40.6 years vs. 37.1 years, p=0.005). Dominant presenting symptoms included bleeding in 56.7%, and anal pain in 44.1% of patients. Hemorrhoids were the most common etiology for these complaints (70.7%); followed by anal fissures (20.1%), anusitis (8.3%), and suppurative pathologies (6.6%), typically in male adults. Anal fistula was the most frequent suppuration 61.1%, followed by abscess 38.9%. Anorectal tumors were rare. In multivariate analysis, hemorrhoids (OR = 2.56; 95%CI: 1.86-3.51; p = 0.01) and anal fissure (OR = 3.9; 95%CI: 2.4-6.3; p <10^{-5}) were associated with bleeding. Thrombosed hemorrhoids (OR = 11.9; 95%CI: 6.4-22.3; p = 0.01), anal fissure (OR = 3.9; 95%CI: 2.4-6.3; p <10^{-5}), and anorectal abscess (OR = 2.6; 95%CI: 1.2-5.8; p <10^{-5}) were associated with pain.

Conclusion: Bleeding, anal pain and rectal prolapse are common presenting symptoms. Hemorrhoids are the most common etiology for these complaints. Data from this study could serve as guidance to gastroenterologists and other practitioners to recognize, assess, and manage anus diseases in our midst.

Keywords: Anus diseases; Male; Hemorrhoids; Fissure in ano; Rectal fistula; Cameroon

Abbreviations

OR Odds ratio; CI: Confidence intervals; AIDS: Acquired immunodeficiency syndrome; HIV Human immunodeficiency virus

Introduction

Risk factors for anus diseases are common in our environment: dietary imbalance or abuse (spices, alcohol, tobacco ...) and HIV/AIDS epidemic. In HIV/AIDS patients, anorectal symptoms are quite common and anus diseases related to HIV are often encountered [1]. Few studies have assessed anus diseases in Cameroon. In 1991 Ndjitoyap Ndam et al. [2] reported a frequency of 62.7% for anus disease among anal and colorectal diseases. Anorectal conditions found were mainly hemorrhoids and the main complaint was bleeding. The most common clinical manifestations of anus diseases in Sub-Saharan Africa patients are bleeding, anal pain, and perception of anal swelling, respectively [3-6]. In Cameroon, there are several taboos around anus diseases. Empirical notions suggest that anus diseases are associated with deviant sexual behavior, especially male homosexuality; therefore, anus diseases are a traditional medical problem, and finally, anorectal examination becomes the source of various interpretations by patients, especially humiliation. These widespread considerations in the population results in to delays in diagnosis. The aim of this retrospective study was to describe the demographic, clinical presentation, and pathological features of anus diseases among outpatients in the Yaounde Teaching Hospital.

Materials and Methods

A retrospective record of data from outpatients with endo-anal examination, seen in proctology consultation at the Yaounde Teaching Hospital from January 2008 to June 2014 was done. The information collected included: demographic data (age, gender), prescribers (Gastroenterologists, General practitioners and other specialists), the reasons for consultation and endo-anal examination (anal pain, bleeding, swelling, pruritus ani, purulent discharge, rectal prolapse, rectal mass, and other symptom) and the anus diseases observed (hemorrhoids, anusitis, anal fissure, suppurative pathologies, ulcers, condyloma, malignant tumors, benign tumors, traumatic injuries, no

Citation: Ankouane F, Kowo M, Biwolé Sida M, Tzeuton C and Ndjitoyap Ndam EC. Anus Diseases in Proctology Consultation in the Yaounde University Teaching Hospital (Cameroon): Male Predominance, Taboo and Neglected Diseases. Austin J Gastroenterol. 2015; 2(5): 1051.

Table 1: Patients demographics characteristics (n=820).

Variables	No. of cases	%	95% Confidence Interval
Age (years)*	40,38 ± 13,71		
Age Groups (years)			
< 20	41	5,0	3,7-6,8
20-39	352	42,9	39,5-46,4
40-59	359	43,8	40,4-47,3
≥ 60	68	8,3	6,5-10,4
Gender			
Female	231	28,2	25,1-31,4
Male	589	71,8	68,6-74,9

*mean age ± standard deviation; No., number of cases; %, percentage.

lesion, and other lesions). Histological, bacterial, and viral samples were not analyzed in this study as well as the risk factors.

The study included patients of all ages and gender, seen in proctology consultation with endo-anal examination; with full files reports, demographic and clinical data. Patients with incomplete records and those who had a colonoscopy or a barium enema as a diagnostic examination were excluded from the study. The endo-anal examination was carried out by three gastroenterologists. The equipment used consisted of a rigid, metal, stainless steel and autoclavable anoscopes and rectoscopes (A. Legrand, Paris, France) adult size (length = 70mm, diameter = 20mm),and pediatric size (length = 60 mm, diameter = 16 mm) fed by a light source Olympus CLK-3E® (Olympus Corporation, Tokyo, Japan). Disinfection of equipment was carried out with the disinfectant Steranios® 20% concentrate (ANIOS Laboratories, Rue du Moulin, 59260 Lille Hellemmes, France) according to manufacturer's recommendations, dilution of 5% for a contact of 20 minutes, the water used for dilution was filtered using water filters (Atlas Filtri®, Via del Santo 227, 35010 Limena , Italy).

Results

A total of 820 patients met our inclusion criteria. The anorectal examination was requested by a gastroenterologist in 431 (52.6%), by a generalist in 195 (23.8%), by another specialist in 181 (22.1%), and unspecified in 13 (1.6%) patients. In total we recorded 919 cases of anus diseases. The mean age of the 820 outpatients with anorectal complaints was 40.38 years (± 13.71), and 71.8% were male. Patients with anus diseases were older than those with normal anorectal examination (40.6 years vs. 37.1 years, $p = 0.005$) (Table 1). A total of 465 (56.7%) patients had bleeding, 362 (44.1%) anal pain, and 64 (7.8%) anal prolapse (Table 2).

The anorectal examination was normal in 7.0% of patients. The main anus diseases were: hemorrhoids in 580 (70.7%) patients, 63.1% of the anus diseases, anal fissure in 165 (20.1%), 18.0% of the anus diseases, anusitis in 68 (8.3%), 7.4% of the anus diseases, and suppurative pathologies in 54 (6.6%), 6.0% of the anus diseases. Among hemorrhoids, 549 (94.7%) were internal hemorrhoids and 277 (50.5%) grade 2. The location of anal fissure was in the posterior midline in 160 (97.0%) patients with fissures, anterior midline in 3 (1.8%), in lateral location in 2 (1.2%). Among suppurative pathologies, anal fistula was found in 33 (61.1%) and abscess in 21 (38.9%) patients. In total, 15.7% of hemorrhoids had a concomitant anal fissure (p <0.0001) and 6.1% of anal fissures were associated to suppurative pathologies (p <0.001). In multivariate analysis, hemorrhoids (OR = 2.56; 95%CI: 1.86-3.51; $p = 0.01$) and anal fissure (OR = 1.79; 95%CI: 1.24-2.58; $p = 0.002$) were associated with anal bleeding. Thrombosed hemmorhoids (OR = 11.93; 95%CI: 6.37-22.33; p = 0.01), anal fissure (OR = 3.90; 95%CI: 2.42-6.28; $p < 10^{-5}$), and anorectal abscess (OR = 2.62; 95%CI: 1.17-5.83; $p < 10^{-5}$) were associated with anal pain (Table 3).

Table 2: Reason for consultation and anorectal examination among patients (n= 820).

Reasons for examination	No. of cases	Percentage (%)
Bleeding	465	56,7
Anal pain	362	44,1
Rectal prolapse	64	7,8
Swelling	55	6,7
Pruritus ani	46	5,6
Discharge per anus	37	4,5
Anorectal mass	6	0,7
Others	46	5,6

No: Number of cases.

The mean age of patients affected with major anus diseases of which hemorrhoids, anal fissures, and suppurative pathologies was 41.9 years, 38.1 years, and 40.4 years, respectively. The sex ratio M/F was 2.9:1 ($p = 0.008$); 2.3:1 ($p = 0.495$), and 5:1 ($p = 0.05$), respectively. In multivariate analysis, female gender (OR = 0.63, 95% CI: 0.46-0.88, $p = 0.02$) was inversely associated with hemorrhoids. (Table 4).

Discussion

This retrospective study involving 820 outpatients seen in proctology consultation in six and a half years, has enabled us to show that, patients with anus diseases in our environment are typically male and the mean age is 40,6 ± 13.4 years. For patients consulting for anorectal symptoms, bleeding is the first complaint (56.7%), followed by anal pain (44.1%), rectal prolapse (7.8%), and anal swelling (6.7%). This study also showed that anus diseases are dominated by hemorrhoids (63.1%). Then comes anal fissures (18.0%), followed by anusitis (7.4%) and anorectal suppurative pathologies (6.0%).

Table 3: Distribution of anus diseases among patients (n=820).

Anus diseases	No. of cases	%	95% CI
Hemorrhoids	580	70,7	67,5-73,8
Fissure in Ano	165	20,1	17,5-23,1
Anusitis	68	8,3	6,5-10,4
Suppurative pathologies	54	6,6	5,0-8,6
Ulcers	12	1,5	0,8-2,6
Benign tumors	11	1,3	0,7-2,5
Malign tumors	9	1,1	0,5-2,2
Condyloma	7	0,9	0,4-1,8
Anorectal trauma	4	0,5	0,2-1,3
Others lesions	9	1,1	0,5-2,2
No lesion	57	7,0	5,4-9,0

No: Number of cases; %, percentage; 95% CI, 95% Confidence Interval.

Table 4: Frequency, means age, peak frequency and sex-ratio for main anus diseases in Cameroon.

	Hemorrhoids (n=580)	Anal fissure (n=165)	Suppurative pathologies (n=54)
Frequency (%)	70,7	20,1	6,6
Mean age (yr)	41,9	38,1	40,4
Younger than 40 yr (%)	254 (43,8)	94 (57,0)	25(46,3)
Older than 40 yr (%)	326 (56,2)	71 (43,0)	29(53,7)
Age of peak frequency (yr)	40-59	20-39	40-59
Peak frequency (%)	47,1	52,7	48,1
Sex-ratio M/F	2,9 :1	2,3 :1	5 :1

No: Number of cases; %, percentage; M, male; F, female

Internal hemorrhoids, thrombosed external hemorrhoids, posterior midline anal fissure, and fistula are the most common clinical forms for such anal lesions.

Hemorrhoidal disease

Hemorrhoids accounted for 63.1% of anus diseases in our study and were primarily internal. They are manifested by bleeding and/or anal prolapse for internal hemorrhoids and painful thrombosis and the sensation of anal swelling for external hemorrhoids. The mean age of patients was 41.9 years and male dominance was the rule with a male-female sex ratio of 2.9:1. This result is similar to the one reported previously in our country by Ndjitoyap Ndam et al. [2], in a retrospective study that included 720 patients explored by lower endoscopy, the anal lesions found were mainly hemorrhoids (39.4%). Several epidemiological studies in West [7-11] and in Sub-Saharan Africa found similar results. A study from Côte d'Ivoire by Mahassadi et al. [5] aimed at determining the characteristics of anus diseases in 136 patients attending the proctology unit at the Yopougon Teaching Hospital. The authors found that the prevalence of hemorrhoids was high (64%) among anus diseases and they are manifested by bleeding. Yassidanda et al. [6] retrospectively found that hemorrhoids were frequent (58.88%) among 412 patients at the hospital l'amitié in Bangui, Central Africa Republic and bleeding were common complaints among patients. Similarly, Dia et al. [4] studied clinical and endoscopic aspects of anus diseases at CHU Aristide le Dantec in Senegal. The authors reported a frequency of 93% for hemorrhoids among 2061 patients with anorectal complaints, especially bleeding. Finally, Bougouma et al. [3] in 2012 described epidemiologic and diagnostic aspects of anorectal pathology in a hospital environment in Ouagadougou. The authors examined 645 patients and concluded that hemorrhoids were the main anus diseases (45.6%), and bleeding were the main presenting complaints. In 15.7% of cases, hemorrhoids of our patients had concomitant anal fissure. In literature, this association was found in 20% of cases and is explained by a common risk factor which is constipation [5, 12].

Fissure-in-ano

Fissure-in-ano was the second anal disease considered in this study (18.0%). It is a cause of anal pain and/or bleeding. The posterior midline location was the most frequent (97%) far ahead of the anterior midline location (1.8%), and the lateral location (1.2%) in both men and women. Anterior fissures were more common in female patients. In this order, our results are similar to those in literature but the proportions are different [12-15]. For example, in the study of Hananel et al. [13] which retrospectively included 876 patients with anal fissures seen between February 1975 and December 1993, 73.5% of fissures occur in the posterior midline of the anal canal, 10% to 15% in anterior midline, and less than 1% sat in the lateral anal walls. In our study, there is little atypical location of fissures. This result can be explained in our context by the scarcity of chronic inflammatory bowel diseases, especially Crohn's disease. Nevertheless, other known causes of anal fissure of atypical location, including tuberculosis and mostly HIV are endemic in our country (Table 5). We are not able to say how many patients were tested positive to HIV because of a lack of biological results in this study, especially among the anal fissures and suppurative pathologies patients. The age of peak frequency of anal fissures was between 20-39 years in our patients, with a male predominance of 2.3:1. There are different reports about anal fissure frequency in patients with anorectal complaints from different countries in Sub-Saharan Africa. Thus, Bougouma et al. [3] reported the frequency of 13.9% in Burkina Faso, while Mahassadi et al. [5] reported 16.9% in Côte d'Ivoire, and Dia et al. [4] reported the frequency of 12.37% among their patients in Senegal.

Table 5: Known causes of atypical location of anal fissure.

Crohn's disease*	Tuberculosis
Chronic inflammatory bowel disease	Leukemia
Syphilis	anorectal Cancer
	Human immunodeficiency virus

*Most frequent cause of atypical location of anal fissure

Suppurative pathologies: anorectal abscess and anal fistula

In our study, anorectal suppurative pathologies accounted for 6.0% of the anus diseases. They are mainly dominated by fistulas (61.1%), far ahead of abscess (38.1%). Abscess and fistula are acute and chronic manifestations of the same diseases process [12, 16, 17]. In most cases, this is the infection of an anal gland and approximately 10% of anorectal abscesses are the result of a specific cause (Crohn, trauma, sexually transmitted infection, radiotherapy, foreign body and HIV) [7, 12, 17]. The proportion of anal fistulas at the time of initial examination varies [18]. For example, in a retrospective study in Maghreb of Merzouk et al. [16], covering 1523 cases of ano-perianal abscess, the prevalence of reported anal fistula was 73.27%, a higher prevalence than in our series. The frequency of anal fistulas reported in literature is high as compared to our results. This difference could be explained by the most appropriate anal fistula diagnostic methods in the West, whereas in our environment few patients are able to pay radiological investigation. In Sub-Saharan Africa, suppurative pathologies prevalence varies between countries from 1.6% to 9.88% [4-6]. Regarding anorectal complaints related to

suppurative pathologies, discharge per anus, anal pain, and swelling were the most frequent symptoms. As for the age and sex of our patients, suppurative pathologies affect men and women of all ages with an age of peak frequency between 40-59 years. Thus, almost 48% of our patients with anorectal suppurative pathologies were in the age group of 40-59 years, with a male-female sex ratio of 5:1. This result differs from those found in the study of Merzouk et al. [16] in which patients were mostly in the 20-40 years age group, a sex ratio of 3.26:1. Also, Beard et al. [19] reported a high frequency in the age 40-50 years group and the sex ratios of 2:1 to 3:1. Anal fissures associated with suppurative pathologies were more rare (6.1%). This result was found by Bouchard et al. [7] in France. Nevertheless, it was few frequent as described by Gupta et al. [20] in a retrospective study which included 532 patients treated for chronic anal fissures, where 88 patients (16.5%) were found to have suppurative pathologies. Suppurative pathologies, independent of the terminal gut were not found in our series.

Rare anus diseases

Benign and malignant anorectal tumors represent a small proportion of anus diseases in our series, that is1.2% and 1%, respectively. Other authors in Africa also reported similar results [3-6, 21-23]. The prevalence of anorectal tumors in literature and in the American series is only 1.5 to 4% of colorectal tumors [24, 25]. Similarly, traumatic lesions, ulcers, and condyloma were rare. It is recognized that the increasing prevalence of lesions due to human papillomavirus; agent responsible for the appearance of condyloma; both for heterosexual and homosexual subjects is related to the prevalence of the HIV infection [26]. Paradoxically in our series, condylomas were rare despite the HIV in our context. This may be due to the fact that HIV patients are mostly followed by dermatologists and internists, and as a result they rarely consult in proctology. This study however has limits. It is a retrospective study. Biological and histological data were missing from the files. Therefore, life habits and bowel habits were not always included in the reasons for the anorectal examinations. Finally, the management and the follow-up of anus diseases were unknown.

Conclusion

The results of this study indicate a high frequency of anus diseases among patients consulting for anorectal symptoms. Bleeding, anal pain, and rectal prolapse are common complaints among patients. Hemorrhoids are the most common etiology for these complaints, followed by anal fissures, anusitis, and anal fistula. This usually concern adult male patients. The authors suggest that the high frequency of anus diseases in Cameroon may constitute a public health problem. Thus, data from this study could serve as guidance to gastroenterologists and other practitioners to recognize, assess, and manage anus diseases in the country.

Acknowledgement

The authors appreciate Ms. K. Rikem for English editing and Professor A. Bougouma for study revision.

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Citation: Ankouane F, Kowo M, Biwolé Sida M, Tzeuton C and Ndjitoyap Ndam EC. Anus Diseases in Proctology Consultation in the Yaounde University Teaching Hospital (Cameroon): Male Predominance, Taboo and Neglected Diseases. Austin J Gastroenterol. 2015; 2(5): 1051.