

Contribution of endoscopy to the diagnosis of anorectal pathology in N'Djamena: analysis of explorations in 842 patients.

ABSTRACT

Introduction: Anorectal disorders, often unacknowledged, are common in gastroenterology consultations. Anorectoscopy plays a vital role in their diagnosis. The aim of this study is to provide an overview of anorectal pathology in N'Djamena hospitals.

Patients and method: This was a retrospective, descriptive, cross-sectional study spread over 10 years (January 01, 2014 to December 31, 2023). The digestive endoscopy unit of **CHU-RN** *First time abbreviations need to be explained.* served as our setting. *The data was collected from the register of anorectoscopy reports. The data was collected is grammatically correct.* All usable reports were included. Sphinx and SPSS software were used for data analysis.

Results: A total of 948 anorectoscopies were performed out of a total of 1052 lower GI endoscopies. *Eight hundred and forty-two (842) presented with anorectal pathology (88.8%). Lesions is too specific yet anorectal pathology allows for more diseases to be taken into account.* The mean age of patients was 49 years, with extremes of 18 and 84 years. Male predominance was observed, with a sex ratio of 3. Hematochezia was the most common indication in 52.9% of cases, followed by proctalgia (41.7%). Endoscopic lesions were dominated by **hemorrhoidal disease** (46.7%), erosive anites (16.1%) and rectitis (10.%). A statistically significant relationship was found between hematochezia and hemorrhoidal disease. Anorectal tumors were poorly represented (7.9%).

Conclusion: Anorectal diseases are frequent and present a clinical and lesional polymorphism, dominated in our context by **haemorrhoidal** *Consistency in grammar is a must.* disease.

Key words: anorectal pathology, hematochezia, anorectoscopy, Chad.

INTRODUCTION

Anorectal pathology is frequently encountered in gastroenterology and general surgery consultations. Proctological examination and anorectoscopy are key to diagnosis [1,2, 3].

This pathology encompasses various entities. Its frequency, which varies, is underestimated in sub-Saharan Africa due to socio-cultural considerations that make it a shameful disease, prompting patients to turn more readily to traditional medicine [4,5,6,7]. Without a proctological examination, traditional medicine often wrongly considers and treats all proctological manifestations as **haemorrhoidal** disease [8].

In Chad, the practice of endoscopy is low, resulting in underestimation of anorectal pathology. Hence the interest of this study, the aim of which was to provide an overview of anorectal diseases at the CHU-RN with a view to improving their management.

Patients and method

This was a retrospective, prospective, cross-sectional and descriptive study over a 10-year period from January 01, 2014 to December 31, 2023.

The digestive endoscopy unit of the Gastroenterology/Internal Medicine Department of the National Reference University Hospital of N'Djamena, the first in the country, served as our study setting. Upper and lower digestive endoscopies are performed every working day. Patients were received from the city of N'Djamena and neighboring provinces. Patients of both sexes, aged at least 15 years, presenting with **lower digestive symptoms** *Lower GI tract symptoms* were included. Lower GI endoscopy was performed by 2 *Numbers up to ten should be written in words.* gastroenterologists during the first 5 years of the study (2014 to 2018). From 2019 to 2023 the number of gastroenterologists performing the examinations increased to **04**. Manual disinfection of equipment was carried out according to standards, in 4 tanks containing a decontaminant, **clean water**, glutaraldehyde (steranios® 20%) **and clean water** respectively. Disinfection time was at least 15 min.

Examination conditions

Preparations were based on Normacol*, a single-dose rectal solution used the day before **and on** the day of the **procedure**. **However, some patients requested sedation** *If this is mentioned there should be explanation that most patients underwent the procedure without any sedation.* In the case of lesions suspected of malignancy, biopsies were taken for histological study.

A pre-established data collection form, including socio-demographic data, indications, sites and types of lesions, as well as endoscopic diagnosis, was used to

collect the data, which was entered using WORD 2013, EXCEL and EPIDATA software. Data was then transferred to sphinx and SPSS for analysis.

RESULTS

A total of 948 anorectoscopy reports were included out of 1052 lower GI endoscopies performed; 842 (88.8%) were pathological.

The mean age was 49 years, with extremes of 18 and 84 years. The 30-40 age group accounted for over 30% (n=255). Males accounted for 74.8% (n=630) of cases, with a sex ratio of 3.

Table I: Distribution of patients according to socio-demographic data

| Socio-demographic data | n | % |
|------------------------|-----|------|
| Age (years) | | |
| <20 | 21 | 2,5 |
| [20-30[| 198 | 23,5 |
| [30-40[| 255 | 30,3 |
| [40-50[| 170 | 20,2 |
| [50-60[| 108 | 12,8 |
| [60-70[| 65 | 7,7 |
| >70 | 25 | 3,0 |
| Gender | | |
| Female | 212 | 25,2 |
| Male | 630 | 74,8 |

Indications and results of anorectoscopy

Hematochezia was the most frequent indication (53.1%), followed by proctalgia (41.7%). Endoscopic lesions were dominated by hemorrhoidal disease (46.7%) and erosive anites (16.1%). A statistically significant relationship was found between hemorrhoidal disease and hematochezia ($p=0.04$). Endoscopic ulceration and stenosis suggestive of anorectal malignancies was found in 67 patients (7.9%), including 33 (49.3%) confirmed by histology (3.9%).

Table II: Breakdown of patients by indication and pathology pathologies

| Indications | n | % |
|------------------------------------|------------|--------------|
| Indications | | |
| Hematochezia | 447 | 53,1 |
| Proctalgia | 351 | 41 ,7 |
| Chronic diarrhea | 15 | 1,8 |
| Constipation | 29 | 3,4 |
| Pathologies found | | |
| Hemorrhoidal disease | 393 | 46,7 |
| Erosive anitis | 136 | 16,1 |
| Anal fissure | 108 | 12,8 |
| Rectitis (nonspecific) | 85 | 10,1 |
| Rectal polyp | 37 | 4,4 |
| Anal polyp | 16 | 1,9 |
| Anorectal ulcerating masses | 53 | 6,3 |
| Enlarging, stenosing anal masses | 14 | 1,6 |

Discussion

This study provided an overview of anorectal pathology in N'Djamena. In this series, of the 948 anorectoscopy reports used, 842 were pathological (88.8%) and 106 without pathology (11.1%).

Our results are similar to those of the Bougouma study in Burkina Faso, which found 73.1% pathological endoscopies out of a total of 882 cases, and 26.9% normal endoscopies over 10 years [9]. They are also close to those of the Senegalese series, which reported 97.9% pathological endoscopies out of a total of 2,583

explorations [10]. The low rates of normal anorectoscopies in our African series can be explained by socio-cultural constraints. Indeed, proctological pathologies are considered shameful diseases in **our society**. These prejudices lead patients to confide first in traditional practitioners, and only later consult **healthcare** facilities in the event of complications.

Age

The mean age of patients was 49 years, with extremes of 18 and 84 years. This result is close to that of the Central African series, which reported an average age of 45.6 years [7]. **This relatively young average age** *The sentence is stylistically incorrect and should be rewritten.* is also in line with data from the African literature, which reports an average age around **forty** *The text should be screened for inconsistencies.* [9,11,12]. Also, 2016 demographic data from Chad show a predominantly young population [13].

> Gender

In this study, males predominated (75.4%). The sex ratio was 3. This male predominance has been found in several studies [9,14,15]. This high prevalence of anorectal pathologies in males can be explained, **on the one hand**, by their financial autonomy, which facilitates access to **healthcare** facilities, and, on the other hand, by their exposure to certain habits, such as alcohol and coffee consumption, considered to be **factors favouring haemorrhoidal disease** *to be risk factors in development of hemorrhoidal disease.* Indeed, **the latter** *if only one specific pathology is mentioned in the paragraph it is not latter* was the most common anorectal condition in our series.

Indications

Hematochezia was the main indication (53.1%) followed by proctalgia (41.7%). This result corroborates data from the African literature [6,9,11]. The high prevalence of hematochezia may be explained by the fact that bleeding is associated with disease severity. It is distressing for patients and physicians alike, and a warning sign for practitioners. Also, bleeding of any kind is considered in the African conception as a prodrome of imminent death [6]. In our study, a statistically significant relationship was established between hematochezia and hemorrhoidal disease. As for proctalgia, its high frequency could be explained by the disruption to quality of life it causes, and by the discomfort and inconvenience it entails.

Pathologies found

Hemorrhoidal disease

Hemorrhoidal disease accounted for 46.7% of anorectal disorders. This result is close to those of Tahir's 2022 study in Chad [16]. Indeed, according to the literature, haemorrhoidal disease is the most frequent proctological condition [17,18]. In African series, several authors have made the same observation [5,6,9,10,11]. Alcohol and **spice** needs to be explained. consumption, as well as obesity and other contributing factors such as constipation (most often caused by changes in dietary habits), are thought to explain the high prevalence of haemorrhoidal disease [19]. The same applies to prolonged sitting in certain professions [20]. In our context, the prevalence of hemorrhoidal disease may even be underestimated, as very few centers have a digestive endoscopy unit.

Erosive anitis

Erosive anitis was second only to haemorrhoidal disease in this latest series (16.1%). Our results are similar to those of the studies by Koura and Bougouma in Burkina Faso [5,9]. However, it differs from that of the Togolese series, where fistula was the second most common pathology after haemorrhoidal disease [6]. **The high prevalence of fistula and hemorrhoidal disease is thought to be linked to pain in our context (41.7%).** The statistical significance must be noted and the link explained, otherwise it is a speculative statement

Anal fissure

Anal fissure accounted for 12.8% of cases and was the third most common proctological condition in our study. This result is in line with data from the African literature [10,12]. In this condition, pain is the main symptom that motivates consultation. In our study, pain was the indication found in all patients with anal fissures.

Polyps

Apart from fissures, polyps were the least frequent condition (4.4% rectal polyps and 1.9% anal polyps). This result is close to that of the Koura study in Burkina Faso, which reported 3.2% rectal polyps [20]. However, it is lower than that of the Hamadine study in Zinder, Niger [20]. In the African literature, polyps are rare conditions with a frequency ranging from 0.1% to 4.5% [6,14].

Malignant tumors

Endoscopic suspicion of an anorectal tumour was found in 7.9% of cases, of which 23 (49.2%) were confirmed by histological examination (3.9%). The availability of human resources in **anatomopathology** is a crucial problem in our country, which currently has only one specialized physician, making it difficult to analyze biopsy specimens. However, our results are comparable to those found in Burkina Faso by

Koura, Guingané and Sawadogo, who reported a low prevalence of anorectal cancer [5,22,23]. These results are also in line with the literature, which reports a low prevalence of anorectal cancer in Africa [24]. This low rate can be explained by a low demand for endoscopic proctological examinations on the one hand, and by the unavailability of equipment and qualified human resources on the other.

Conclusion

Anorectal disorders are dominated by haemorrhoidal disease, which predominantly affects men. Although hemorrhoidal disease is benign, when symptoms are present, a diagnostic evaluation should be carried out by performing a lower endoscopy (especially in elderly patients) to rule out other associated pathologies, in particular malignancy.

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