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Hemorrhoidal Disease: What Treatment Is Available at Gabriel Touré University Hospital?

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Abstract

Hemorrhoidal disease is the most common anal condition, manifesting itself intermittently. It requires rigorous management, with treatment and monitoring adapted to the stage of the disease. The objective was to evaluate the management of hemorrhoidal disease in the hepatology and gastroenterology department of the GABRIEL TOURE University Hospital Center. This was a longitudinal, descriptive analytical study with prospective data collection over one year, conducted in the hepatology and gastroenterology department of the Gabriel Touré University Hospital. The parameters studied were age, medical history, bowel movement profile, triggering factors, specific symptoms (bleeding, prolapse, pain), duration of the disease, and various treatments. We collected data on 140 patients with Hemorrhoidal Disease (HD) out of 2800 patients, representing a frequency of 5% and 23.33% of the 600 patients with proctological pathology. The sex ratio was 1.69 with a mean age of 35.21 ± 12.45 years, ranging from 15 to 76 years. Patients consulted more for anal pain (53.57%) with constipation (58.57%) as the predominant risk factor. Anal pain (79.29%), followed by anal pruritus (47.86%), were the most common functional signs. More than half of our patients had hemorrhoidal prolapse, *i.e.*, 55% on anal inspection. In 41 patients (29.28%), the location was "right posterolateral, right anterolateral, and left lateral". Internal Hemorrhoidal Disease (IHD) was the most common (82.75%), with 76.72% without thrombosis. Goligher stage II was the most frequently observed in our patients (53.13%). Hygiene and dietary rules and regular bowel movements were systematically implemented in all our patients (100%), and 97.86% received drug treatment. Ten patients (7.14%) underwent elastic ligation, with 8 patients (80%) show-

ing favorable progress and 2 patients (20%) developing complications, namely pain and rectal bleeding. Twelve patients (8.57%) received surgical treatment. Regardless of the type of treatment, the outcome was significantly favorable ($p = 0.037$). The average duration of medical treatment for our patients was 27.58 ± 7.81 days, with extremes of 7 and 60 days. Hemorrhoidal disease is a common condition. Anal pain was the most common functional symptom (79.29%), followed by anal pruritus (47.86%). First-line treatment was medical followed by instrumental. A significant link was found between the progression of the disease and the treatment received ($p = 0.037$). Surgery should be a last resort.

Keywords

Therapeutic Aspect, Hemorrhoidal Disease, GABRIEL TOURE Hospital

1. Introduction

Hemorrhoidal disease is the most common anal condition, manifesting as intermittent symptoms such as bleeding, pain, and prolapse. These signs are more common in this condition and therefore require a thorough proctological examination as they may have a more serious cause [1] and must be treated. The prevalence of hemorrhoidal disease is 50% in Europe [2] and 50% to 80% in the United States of America [3]. In Africa, hemorrhoidal disease accounted for 38.5% of anorectal-sigmoid pathologies in Gabon [4] and 58.8% of anorectal pathologies in Bangui (CAR) [5]. In Mali, in specialized surgical settings, it accounted for 1.07% of all consultations and 30% to 40% of proctological consultations [6]. In specialized medical settings, it accounted for 75.6% [7] and 18.27% [8] of proctological consultations. Although benign, hemorrhoidal disease is psychologically difficult for patients to cope with, hence the need to consult a specialized healthcare facility in order to obtain an accurate diagnosis and undertake specific treatment. There are three methods of treatment (medication, instruments, and surgery), some of which are symptomatic and others curative, and the choice of treatment must be tailored to each patient according to the stage and symptoms of the hemorrhoidal disease [9] [10]. Given the age and availability of certain instruments and the limited number of studies on the therapeutic aspects of this condition, we felt it necessary to update the data on hemorrhoidal disease by also evaluating its management in the Hepatology and Gastroenterology Department at the Gabriel Touré University Hospital.

2. Patients and Methods

This was a longitudinal, descriptive, and analytical study with prospective data collection over one year from September 1, 2021, to August 31, 2022. The study was conducted in the Hepatology and Gastroenterology Department of the GABRIEL TOURE University Hospital. We included all patients seen in consultation

who gave their informed consent and who had been diagnosed with hemorrhoidal disease. The interview allowed us to collect information on age, medical history, medication, bowel movement profile, triggering factors, specific symptoms (bleeding, prolapse, pain), duration of the disease, and various treatments previously implemented, and a proctological examination (inspection + anorectal examination + anoscopy) by a hepatogastroenterologist. The data were processed and analyzed using Epi Info 7 software. Associations between dependent and independent variables were investigated using Pearson's Chi^2 test. Relative risks and their 95% confidence intervals were calculated to quantify the strength of the associations. The significance threshold was $p < 0.05$.

3. Results

From September 1, 2021, to August 31, 2022, we collected data on 140 patients with Hemorrhoidal Disease (HD) out of 2800 patients seen in consultation or hospitalized in the hepatology and gastroenterology department of the GABRIEL TOURE University Hospital, representing a frequency of 5%. Of the 2800 patients, 600 (21.42%) had a proctological condition, including 140 patients with hemorrhoidal disease, representing a frequency of 23.33%. The average age of our patients was 35.21 ± 12.45 years, with extremes of 15 and 76 years (**Figure 1**) and a sex ratio of 1.69 (**Figure 2**). The main reasons for consultation were anal pain (53.57%), followed by isolated rectal bleeding (13.57%) and constipation (10.71%). The risk factors identified were transit disorders, predominantly constipation (58.57%), followed by alternating diarrhea and constipation (20%) and a family history of hemorrhoidal disease (15%). Anal pain (79.29%), anal pruritus (47.86%), anal heaviness (45%), and hemorrhoidal prolapse (45%) were the most common functional signs. More than half of our patients had hemorrhoidal prolapse (55%), painful sensitivity (55.71%), and confirmed bleeding (5.71%) on digital examination. Internal Hemorrhoidal Disease (IHD) was the most common (82.75%), with 76.72% without thrombosis and located in the "right posterolateral and right anterolateral and left lateral" (29.28%) and 22.14% with a "right posterolateral and right anterolateral" location, followed by a "right anterolateral and left lateral" location in 11.43% of cases. Stage II was the most frequently observed in our patients, at 53.13% (**Table 1**). Other proctological conditions were associated with hemorrhoidal disease in 17.15% of cases, the most common being anal fissure (10%). Hygiene and dietary guidelines and regular bowel movements were systematically implemented in all our patients (100%). In our study, 80% of our patients received a combination of veinotonics and laxatives, 7.14% received instrumental treatment, with elastic ligation being the only treatment technique used, and 8.57% received surgical treatment. The average duration of medical treatment for our patients was 27.58 ± 7.81 days, with extremes of 7 and 60 days. 84.28% of patients progressed favorably, and 22 patients (15.71%) developed complications such as pain and bleeding. None of the 12 patients who underwent surgery experienced any immediate or late postoperative complications. A favorable outcome

was significantly observed regardless of the treatment modality (medication, instrumental, or surgical) (p = 0.037) (Table 2).

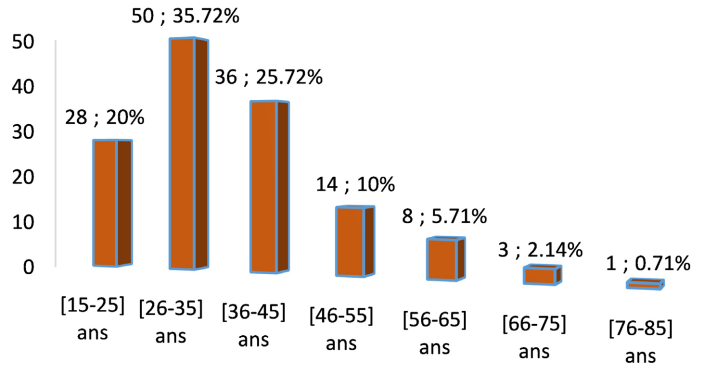

Figure 1. Age of patients.

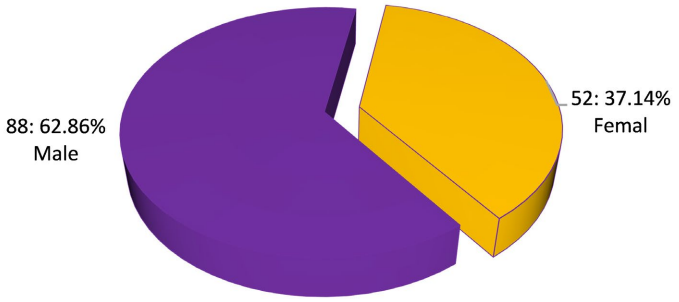

Figure 2. Gender of patients.

Table 1. Stages of internal hemorrhoidal disease.

Treatment \ Evolution	Favorable n/N %	Complication n/N %
Drug treatment	**118/140**	22/140
	84.28%	15.71%
Instrumental treatment	**08/10**	02/10
	80%	20%
Surgical treatment	**12/12**	00
	100%	00%

Table 2. Evolution and treatment.

Goligher Stage	Workforce n/N	Percentage %
Stage I	22/96	22.92
Stage II	**51/96**	**53.13**
Stage III	15/96	15.62
Stage IV	01/96	01.04

$X^2 = 6.56$, p = 0.037, ddl = 2.

4. Discussion

This was a longitudinal, descriptive analytical study with prospective data collection over a 12-month period. We collected data on 140 patients with Hemorrhoidal Disease (HD) out of 2800 patients seen in consultation or hospitalized in the hepatology and gastroenterology department of the GABRIEL TOURE University Hospital, representing a frequency of 5%. The average age of our patients was 35.21 ± 12.45 years, with extremes of 15 and 76 years; the age group between [26 - 35 years] was the most represented, at 35.72%. This age is close to that reported in some studies in sub-Saharan Africa [11]-[13]. However, when compared with data from Europe [14] [15] and certain African studies [10] [16], it is higher and varies between 45 and 55 years. This explains why hemorrhoidal disease appears around the third decade of life, increases with age, and peaks in frequency between 45 and 65 years [17]. This difference could be explained by the young age of the population in developing countries. We found a male predominance in 62.86% of cases (n = 88) with a sex ratio of 1.69. This result is consistent with those of the above authors, who all found a higher frequency of hemorrhoidal disease in men. This male predominance can be explained by several factors, including higher consumption of stimulants (alcohol, coffee, tobacco), and participation in certain types of physical labor and sports (cycling, motorcycling, weightlifting). The low female prevalence could be explained by modesty, given that in our sociocultural context (hemorrhoidal disease is considered a shameful condition), women rarely seek medical advice for proctological conditions [10]. However, women are nevertheless exposed to hemorrhoidal disease due to the influential role of genital life, pregnancy, and childbirth. In an Asian study, this female predominance was reported [18]. Anal pain was the most common reason for consultation (53.57%). This frequency is higher than that reported by Koulibaly A. [9] and Ezhari O. [10], who were 45.3% and 26%, respectively. It is significantly lower than that found by Diarra M. *et al.* [19], Hrora A. *et al.* [20], and Dicko M. L. [21], which were 58.4%, 70%, and 77.3%, respectively. Its presence would indicate an inflammatory hemorrhoidal flare-up, thrombosis, or another anal pathology associated with hemorrhoidal disease (hidden anal fissure, etc.). Constipation was the most common risk factor. Its frequency in our study was 58.57%. This frequency is much lower than that found by Sangaré D. [8] and Ezhari O. [10], which were 75% and 90.5%, respectively. However, it is consistent with that found by Diarra M. *et al.* [19] (58.3%). This difference in frequency could be explained by the lifestyle and eating habits of these different populations and is consistent with data in the literature reporting that constipation is a risk factor that leads to increased defecation pressure, an increase in the connective tissue of the corpus cavernosum, and hyperplasia of the blood vessels, which causes a loss of elasticity in the supporting tissue [22]-[24]. Thus, the difficult passage of very hard stool was responsible for triggering hemorrhoidal disease [25]-[27]. Anal pain was the most common functional sign (79.29%). This frequency is much higher than that found by Koulibaly A. [9] and Ezhari O. [10], which were 45.3% and 26% respectively. However, it is

comparable to that found by Camara L. S. [11] and Hrora A. *et al.* [20], which were 69.6% and 70%, respectively. This difference in frequency could be related to the living conditions of these different populations. Internal Hemorrhoidal Disease (IHD) was the most common (82.75%) and was classified as stage II in the majority of our patients (36.43%). This result is consistent with the result found by Ezhari O. [10], who found stage II in the majority (61.54%). Meanwhile, in the studies by Camara L. S. [11] and Coulibaly A. *et al.* [28], stage IV was found in the majority. This difference could be related to the different consultation times depending on the stage of the disease. The most common location was "right posterolateral, right anterolateral, and left lateral", accounting for 29.28%. This frequency is lower than that found by Camara LS. [11], who found that the location "right posterolateral, right anterolateral, and left lateral" was present in 60.3% of cases. This difference could be explained by the sample size and methodological bias. Proctological pathologies were associated with hemorrhoidal disease, the most common of which was anal fissure, accounting for 10%. The association between MHI and fistula and between MHI and benign anal tumor were both 2.86% of cases, respectively. These results are similar to those found by Koulibaly A. [9], who found that the association between MH and anal fissure was the most common, accounting for 9.3% of cases, while the association between MH and fistula was 1.33% of cases. Camara L. S. [11] found that the association between MH and anal fissure was the most frequent, accounting for 8.2% of cases, while the association between MH and fistula was 2.7% of cases. Hygiene and dietary rules and regular bowel movements were systematically implemented in 100% of our patients. We found no statistically significant difference between our results and those of Ezhari O. [10], which were 100% ($p = 0.543$). In our series, 97.86% (n = 137) of our patients received drug treatment, 80% (n = 112) of which was a combination of veinotonics + laxatives. These results are comparable to those reported by Ezhari O. [10], where 80% received a combination of phlebotonics + local topical treatments + laxatives. In our study, 10 patients (7.14%) received instrumental treatment, with elastic ligation being the only treatment technique used as it is the only one available in our context. This frequency is much lower than that found by Ezhari O. [10], who found that 25% (n = 33) of his patients received instrumental treatment with elastic ligation. This difference in frequency could be explained by the size of the sample and also by the small number of proctologists in the country. The indications for instrumental treatment in our patients were failure of drug treatment for IHM and stage III IHM associated with bleeding. This result is consistent with that reported in most studies, namely Ezhari O. [10], who found that elastic ligation was used in 15% of grade II internal hemorrhoids (n = 16/56) and 85% (n = 17/20) of grade III internal hemorrhoids. Fukuda A. *et al.* [29] found that elastic ligation was used in 23% of grade II internal hemorrhoids (n = 19) and 57% (n = 47) of grade III internal hemorrhoids. In our study, 12 patients (08.57%) received surgical treatment. This result is similar to that of Coulibaly A. [30], who found that surgical treatment was used in 10.71% of patients.

The indications for surgical treatment in our patients were failure of medical treatment for THE, MHI associated with benign anal tumor or anal margin abscess, and stage IV MHI. During drug treatment, 22 patients (15.71%) developed complications such as pain and bleeding. This result is lower than that reported by Ezhari O. [10], who found that 20% developed complications, namely pain and bleeding. During instrumental treatment, 8 patients (80%) had a favorable outcome and 2 patients (20%) developed complications such as pain and rectal bleeding. This result is lower than that reported by Ezhari O. [10], who found that 48.5% developed complications such as pain and bleeding.

These results clearly show that intestinal transit disorders, specifically constipation, remain the main risk factor for hemorrhoidal disease, and therefore proper management of constipation can significantly improve the course of hemorrhoidal disease.

The limitations of the study are mainly the single-center recruitment and the fact that our sample consisted of patients who consulted in a specialized department. Despite these limitations, these results allowed for a discussion and comparison with data from the literature.

5. Conclusion

Hemorrhoidal disease is the most common pathology of the anus. Its diagnosis is based on questioning and physical examination. There are three treatment options for hemorrhoidal disease: medical, instrumental, and surgical. The choice of which depends on the symptoms, the anatomical condition of the hemorrhoids, and the patient's general health, but medical treatment remains the first choice. Hygiene and dietary measures are an integral part of the management of hemorrhoidal disease. A favorable outcome was significantly observed regardless of the treatment used (medication, instrumental, or surgical), but some complications are possible, namely pain and bleeding. This study shows that properly managing intestinal transit disorders would significantly improve the natural course of hemorrhoidal disease.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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