## **Original article**



# Epidemiological, Therapeutic and Evolutionary Profile of the Hemorrhoidal Pathology: Experience of The Gastroenterology Department of MED VI University Hospital of Morocco

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#### Abstract

Hemorrhoidal pathology is a benign affection occupying a special place in medical practice, posing essentially therapeutic problems. The aim of this work was to study the epidemiological, therapeutic and evolutionary characteristics of this hemorrhoidal pathology.

We conducted a prospective study in the gastroenterology department of the CHU Mohamed VI of Marrakech over a period of 06 months (March 2019 - September 2019) where we collected 130 cases. The average age was 45.9 years with a clear predominance of men: sex ratio M / F = 1.95. The main reason for consultation was isolated rectal bleeding in 32% of patients. Proctologic examination revealed internal hemorrhoids, mainly stage II and stage III in 58.4% of patients, followed by external hemorrhoids in 16.9% of our patients. Paraclinically, CBC was performed in all patients with rectal bleeding and anemia was found in 17%. Thus, additional endoscopic exploration by colonoscopy was performed in 14.6% of cases returning to normal. The therapeutic management consisted primarily of hygienic and dietary measures in all our patients, 80% received drug treatment; while 25% received Instrumental rubber band ligation treatment after treatment failure, and only 16% of patients received surgical DTC. The evolution was marked by effective treatment in 78.46% of patients, while 28 patients presented minimal complications ranging from simple anal pain to a more or less extensive and serious infection. Despite the effectiveness of surgical treatment, it should be the last resort after a possible failure of medical and instrumental treatment.

Keywords: Hemorrhoidal disease, epidemiology, medical treatment, instrumental treatment, complications

## Introduction

Hemorrhoidal disease is the most frequently encountered condition in proctologic pathology. The term hemorrhoidal pathology results from the transformation of the hemorrhoids, which are anatomical structures normally present in healthy individuals, and which become the cause of symptoms, the most frequent of which are pain, bleeding and swelling. Its pathophysiology is multifactorial, the most likely and validated risk factors are transit disorders and postpartum. The clinical manifestations are variable, ranging from a benign form to a complicated form (thrombosis for example). The diagnosis is clinical by a simple proctological examination; while the therapeutic means are variable (medical, instrumental and surgical) and whose choice must be adapted to each patient according to the stage and the symptoms of the hemorrhoidal disease. The objective of our work is to establish an epidemiological, therapeutic, and evolutionary profile of hemorrhoidal pathology, with a comparison of our results with data from the international literature

## Methods

This is a prospective observational study with a descriptive aim conducted in the gastroenterology department of the Med VI University Hospital of Marrakech, carried out over a period of 6 months (from 03/2019 to 09/2019) and having included 130 patients admitted to the proctology unit. The data sources used were: medical records, proctological examination reports. For each patient, the following parameters were revealed: age, sex, history, character of rectal pain, character of proctalgia, details of the proctological examination, the recommended therapeutic approach as well as the length of time.

Data collection was carried out with respect to the anonymity of the patients and the confidentialitý of their information.

#### Results

We collected 130 patients in our study, the sex ratio was M/F=1.95 with a clear male predominance (66% of the cases); the age range varied between 19 years and 85 years with a mean age of 45.9 years; socio-geographically, the majority of patients were from urban areas (72% of cases) and were of low socio-economic status in 56% of

cases. The main reasons for consultation were terminal rectal pain (32%) and proctalgia often at the time of defecation (26%) followed by anal swelling in 23% of cases, with an average delay of consultation of about 5 years after the appearance of the first symptoms; the questioning of our patients revealed that their lifestyle was sedentary in 65.3% of cases, that 75.3% of the patients had constipation of terminal appearance; with a diet rich in tea, coffee and spices in 91%, 75%, 70% of the cases respectively; while the clinical examination revealed overweight in 38% of the cases; the proctological examination with a careful inspection of the anal margin, a rectal touch and a systematic anorectoscopy was practiced in all our patients, concluding to internal hemorrhoids stage II in 61.54% and III in 21.98 of the cases and external hemorrhoids in 16.9% of the cases. The therapeutic management consisted of hygienic and dietary measures in all our patients, followed by medical treatment in first intention in 80% of cases based on the combination of phlebotonic, local medication (suppository and ointment) and laxatives in association or not with non-steroidal antiinflammatory drugs and short-term corticosteroid therapy; recourse to instrumental treatment by elastic ligation was observed in 25% of cases, mainly in case of internal hemorrhoids stage III. Surgical treatment was performed in 16% of patients whose main indication was stage III and IV internal hemorrhoids and external hemorrhoidal thrombosis, the surgical technique recommended was Milligan-Morgan in 33.3% of cases and simple thrombectomy in 38.1% of cases. The evolution was marked by bleeding and anal pain in 48.5% of the cases after elastic ligation and in 25% of the patients who had thrombectomy, while no complication was noted in the patients operated according to the Milligan-Morgan technique.

#### Discussion

Hemorrhoidal disease is undoubtedly the most common proctological condition although its epidemiology is poorly specified in the literature, the rate of affected individuals in the general population ranges from less than 5% to more than 80% depending on the study <sup>[1]</sup>. It appears around the third decade of life, increases with age, is maximal between 45 and 65 years of age, and then decreases <sup>[1,2]</sup>. This is consistent with the data from our study where the age group between 46 and 65 years was the majority with a rate of 52%; the sex ratio in our study was 1.95 with a clear male predominance, which is consistent with the results of the series by Mbonicura et al. <sup>[3]</sup> where the sex ratio was M/F=2.3, but the different studies estimate an equivalent frequency in both sexes <sup>[1]</sup>.

This is a condition for which the incriminating or aggravating risk factors are numerous and diverse; they have a common denominator which is the increase in abdominal pressure which would slow down the blood reflux in the upper rectal vein, the main favouring factors are transit disorders, in particular constipation, a sedentary lifestyle, consumption of spicy foods, coffee, alcohol, low socioeconomic level as well as urban geographical origin; which was the case for the majority of the patients in our series <sup>[1,4]</sup>.

In our series, the delay of consultation was 5.5 years, which is similar to the data of the Sarles et al <sup>[5]</sup> and Brondel et al <sup>[6]</sup> studies, where the delay of consultation was respectively 5 and 4 years after the beginning of the first symptoms.

The clinical manifestations most frequently found and revealing of the disease in our series were rectal discharge usually contemporaneous with defecation and terminal, proctalgia of the burning type and often occurring at the time of defecation testifying either to a fluxionary crisis or thrombosis, and anal swelling, these physical signs are those reported in the studies of Mbonicura et al. <sup>[3]</sup>, Riss et al <sup>[7]</sup>, Pigot et al <sup>[8]</sup>, Zeitoun et al <sup>[1]</sup> with differences in frequency between these series which are essentially due to recruitment bias.

The proctological examination allowed to highlight the different manifestations of the hemorrhoidal disease: prolapses,

external hemorrhoids, internal hemorrhoids...; whose hemorrhoidal disease was classified stage II in the majority of our patients 61.54%, close to the result found by Bernal J. C et al <sup>[9]</sup> which was 52.48%, while in the studies of Riss et al <sup>[7]</sup>, Akihisa, F <sup>[10]</sup> and Coulibalye et al <sup>[11]</sup>, stages I, III, and IV were most observed in 72.9%, 57.31% and 40.79% of cases respectively. These differences could be mainly due to the sample size.

The therapeutic management was aimed at acting essentially on three clinical manifestations: rectal bleeding, pain and prolapse by various means: medical, instrumental and surgical. In practice, these treatments may be combined or succeed each other. The therapeutic strategy is guided by the clinical findings and by the discomfort expressed by the patient and requires an evaluation of the benefit-risk ratio for each of them <sup>[12]</sup>.

Among the numerous hygienic-dietary rules proposed, none has been formally proven to be of interest. However, hygienicdietary measures have been introduced in all of our patients (anoperineal hygiene, limitation of prolonged sitting and excessive pushing, regularization of intestinal transit, increase in daily fiber intake. These results are comparable to those reported in the studies by Coulibaly et al <sup>[11]</sup> and Diarra et al <sup>[13]</sup> where 89.28% and 100% of patients received medical treatment respectively.

Instrumental treatment is a therapeutic option that can be described as invasive but not surgical and whose target is grade 2 and 3 internal hemorrhoidal disease essentially responsible for rectal bleeding or reducible prolapse. It will often be used in these circumstances after failure of medical treatment and before considering surgery or in case of contraindications to surgery <sup>[14]</sup>. The three main validated instrumental treatments are sclerosis, infrared photocoagulation and elastic ligation. In our series, elastic ligation concerned 15% of grade II internal hemorrhoids (n=16/56), and 85% (n=17/20) of grade III internal hemorrhoids, which is approximately in line with the results of the series of Akihisa et al <sup>[10]</sup>. The success rate varies according to the grade of the internal hemorrhoids, the duration of surveillance and the success criteria<sup>[2]</sup>. The main complications are pain and bleeding <sup>[12]</sup>. In our series, pain was reported in 33.3% of the patients, while rectal bleeding was reported in 15.2% and was well tolerated.

Recourse to surgery represents the most effective therapeutic alternative if we take into account the symptomatic and anatomical elements of the patient. Surgery is proposed for patients who are significantly affected or who are not relieved by medical and instrumental treatments. However, it remains the first-line treatment for stage 4 hemorrhoids and hemorrhoids associated with other comorbidities (perineal abscess, fistulas and anal fissures)<sup>[15]</sup>. In our series, 16.1% received surgical treatment, the Milligan and Morgan technique was our reference technique where 7 patients (33.3%) were operated on using this technique. Our preference for this surgical method is justified by the relative ease of its execution, its effectiveness and especially by its low morbidity. During the entire duration of our study, all the operated patients did not present any immediate postoperative complication. The second surgical technique was simple thrombectomy performed in 8 patients with complications (bleeding in 1 patient, pain in 1 and recurrence in 2 patients).

#### Conclusion

The hemorrhoidal pathology is the most frequent proctological affection, which constitutes a frequent reason for consultation, its physiopathology is multifactorial.

The diagnosis of hemorrhoidal pathology is based on questioning and clinical examination. It is suspected in front of three main signs: rectal bleeding, pain and prolapse, these signs can be isolated or associated.

The therapeutic possibilities of hemorrhoidal disease are threefold: medical, instrumental and surgical, the choice of which

depends on the symptoms, the anatomical state of the hemorrhoids and the terrain.

## **Conflicts of interest**

The authors declare no conflicts of interest.

## **Author Contributions**

All authors contributed to the conduct of this work. All authors have read and approved the final manuscript.

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