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Erectile Dysfunction in Cirrhosis Patients: A Worrying Problem

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Abstract

Introduction: *Cirrhosis is a clinical condition that facilitates the onset of erectile dysfunction through various mechanisms, yet this association has been little studied.The aim of this study was to identify the frequency and severity of erectile dysfunction in cirrhosis patients.*

Patients and Methods: *This is a prospective, descriptive cross-sectional study conducted in the Hepatology and Gastroenterology Department of the Libreville University Hospital between 1 January 2021 and 31 December 2024. We included known cirrhotic patients, followed on an outpatient basis, male, aged 18 to 55 years old, and who gave their consent. Erectile dysfunction was assessed using the International Index of Erectile Function (IIEF-5). The severity of cirrhosis was assessed using the Child-Pugh score. Statistical analysis was performed using SRSS software.*

Results: *We recorded 174 refusals and 92 consents, representing an acceptance rate of 34.59%. The average age was 48 ± 8.4 years. The average follow-up period was 5 years ± 2 years. 19.57% were on beta-blockers and 33.7% on diuretics. The most common causes were alcohol (34.78%), hepatitis B (31.52%) and hepatitis C (19.57%). There were 72.83% of patients with Child-Pugh C cirrhosis (n=67). Erectile dysfunction was present in 91.3% of patients and was severe in 95.24%.*

Conclusion: *Erectile dysfunction in cirrhotic patients appears to be a common taboo subject, the severity of which is similar to the degree of liver deterioration.*

Keywords: Erectile Dysfunction, Cirrhosis, Gabon.

Introduction

Cirrhosis is the advanced stage of all chronic liver diseases [1, 2]. It combines hepatocellular insufficiency, portal hypertension and liver dysmorphia [1, 2]. Erectile dysfunction is the persistent or recurrent inability of a man to achieve or maintain an erection sufficient for sexual activity [2, 3]. The pathogenesis of erectile dysfunction in cirrhotic patients is multifactorial and poorly understood [4]. Indeed, hypogonadism secondary to hepatocellular insufficiency, alcoholic aetiology, medication use and the psychological experience of the disease are all factors that can induce erectile dysfunction in cirrhosis [2-4]. Despite the presence of numerous risk factors, erectile dysfunction in cirrhotic patients appears to have been little studied in Africa [4, 5]. This scarcity of research is undoubtedly due to the modes of decompensation on the one hand and the complications of cirrhosis on the other, which pose an immediate threat to the patients' lives [6]. With a view to providing comprehensive care for cirrhotic patients, we felt it necessary to assess the prevalence and sever-

ity of erectile dysfunction in patients with cirrhosis followed at the Libreville University Hospital.

Patients and Methods

This is a prospective, descriptive study conducted in the Hepatology and Gastroenterology Department of the Libreville University Hospital between 1 January 2021 and 31 December 2024. We included known cirrhotic patients, followed on an outpatient basis, male, aged 18 to 55 years old and consenting. Erectile dysfunction was assessed using the International Index of Erectile Function (IIEF-5). The severity of cirrhosis was assessed using the Child-Pugh score. Other risk factors for erectile dysfunction were systematically collected, including tobacco use, comorbidities such as diabetes, use of medications with a deleterious effect on libido, metabolic syndrome, and cardiovascular history. Statistical analysis was performed using SRSS software.

Results

During the study period, we received 358 patients with cirrhosis, including 270 men and 88 women. There were 6 patients under the age of 18. Of the 266 eligible patients, 174 refused to participate, representing 65.41%.

We therefore included 92 patients, representing an acceptance rate of 34.59%. Their average age was 48 ± 8.4 years. The average follow-up period was 5 ± 2 years. Active smoking was observed in 4 patients (4.35%). Sixty-nine point five per cent were married (n=64), 23.91% were divorced (n=22) and 6.52% were widowed (n=6). Eighteen patients were taking beta-blockers and 31 patients were taking diuretics. The average number of hospitalisations was 3 ± 1. Figure 1 shows that the most common causes were alcohol (34.78%), hepatitis B (31.52%) and hepatitis C (19.57%).

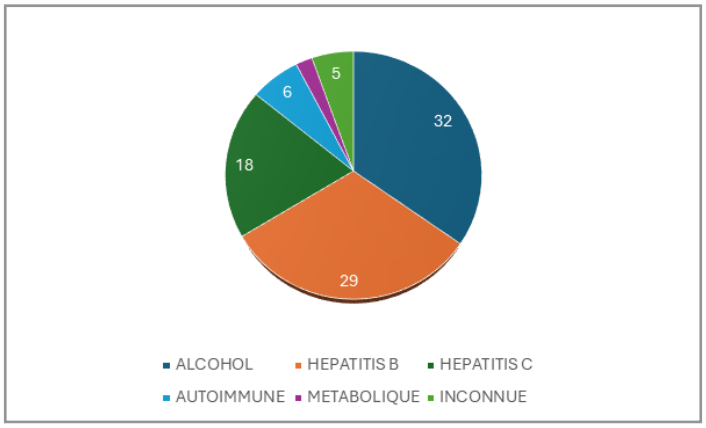

Figure 1: Distribution of patients according to the aetiology of cirrhosis

There were 72.83% of patients with Child-Pugh C cirrhosis (n=67), 23.91% with Child-Pugh B cirrhosis (n=22) and 3.26% with Child-Pugh A cirrhosis (n=3). Erectile dysfunction was present in 91.3% (n=84) of patients and was severe in 95.24% (n=80).

Univariate and multivariate analysis with logistic regression found no statistical link between the aetiology of cirrhosis and the presence of erectile dysfunction (p=0.42). There was an association between the Child-Pugh C score and the presence of erectile dysfunction (p=0.0031, r=0.985, 95% CI: [0.865; 0.998]) as well as with the presence of major erectile dysfunction (p=0.003, r=0.986, 5% CI: [0.871; 0.999]). The duration of cirrhosis follow-up showed no statistical link with the presence of erectile dysfunction (p=0.191). The use of beta-blockers showed a statistically significant correlation with the presence of erectile dysfunction (p=0.0103, r=0.916, 95% CI [0.407;0.991]. The use of diuretics showed a non-statistically significant trend (p=0.058, r=0.796, 95% CI [-0.045; 0.77]).

Table 1: Relationship between the aetiology of cirrhosis, Child-Pugh score, medication use and the presence of erectile dysfunction

Etiology of cirrhosis	Alcohol	Hepatitis B	Hepatitis C	Autoimmune	MASH	Unknown
Duration of cirrhosis follow-up (years)	4	9	6	4	2	5
Taking beta blockers						
(n=92)	6	10	2	0	0	0
Taking diuretics (n=92)	5	14	8	1	1	2
Child-Pugh C score (n=92)	21	25	15	1	1	4
Presence of erectile dysfunction						
(n=92)	30	29	17	3	1	4
Presence of major erectile dysfunction (n=92)	26	25	15	1	1	2

Discussion

The low patient participation rate in this survey (34.59%) shows that erectile dysfunction remains a taboo subject. Hunter et al. had already noted the difficulty of assessing erectile dysfunction in cirrhotic patients who also present with several other more alarming symptoms [7]. Yafi et al. also pointed out that erectile dysfunction even in the general population varied from 5% to 50% due to its taboo nature [8]. This low adherence contrasts with the high frequency of erectile dysfunction found in the patients assessed (91.3%). This high frequency of erectile dys-

function in cirrhotic patients was observed by Kadidjatou et al in Benin, with 42.18% [5]. Thakur et al with 41.2%, Hunter et al with 50% and Gueye et al with 52.2% confirmed this high prevalence of erectile dysfunction in cirrhotic patients [7,9,10]. However, although these studies found a high frequency of erectile dysfunction in cirrhotic patients, these figures were still far from the 91.7% observed in our survey. These differences can be explained by methodological biases, in particular the use of the International Index of Erectile Function (IIEF-5), which was not the tool used to assess erectile dysfunction. Furthermore, in our series, the proportion of patients with Child-Pugh C cirrhosis (72.83%) was much higher than in other series (less than 55%) [5, 7, 9, 10].

Indeed, Sorell et al., Paternostro et al., and Adekanle et al. had shown that the more severe the cirrhosis, the more frequent and severe the erectile dysfunction [11-13]. Furthermore, other authors such as Maimone et al and El Atrebi et al reported that factors associated with erectile dysfunction in cirrhotic patients included being over 40 years of age and having viral hepatitis C [14, 15]. We did not make the same observations because the average age of our patients was relatively young and the aetiologies of cirrhosis were varied, with hepatitis C being only the third leading cause of cirrhosis. We observed a significant association between beta-blocker use and the presence of erectile dysfunction in cirrhotic patients. Although rarely mentioned in the literature, this is a known side effect of this class of drugs [16].

Conclusion

Erectile dysfunction in cirrhotic patients appears to be a common taboo subject, the severity of which is similar to the degree of liver deterioration and the use of certain medications. This suggests the need for systematic research and integrated management of the entire liver disease.

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