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Review Article

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EPIDEMIOLOGICAL AND EVOLUTIONARY PROFILE OF HEPATIC CIRRHOSIS PROFIL EPIDEMIOLOGIQUE ET EVOLUTIF DE LA CIRRHOSE HEPATIQUE

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ABSTRACT

Introduction: Cirrhosis is a serious, progressive disease and constitutes a public health problem in our country being burdened with a heavy morbidity and mortality. the objective of this work is to analyze and update the epidemiological, clinical and evolutionary aspects of cirrhosis. Materials and Methods: This is a retrospective study carried out in the hepato-gastroenterology department with the aim of analyzing the characteristics of patients hospitalized for cirrhosis during the 3-year period between May 2017 and May 2019. Diagnosis of cirrhosis was posed on the basis of clinical, biological, morphological and endoscopic arguments. Results: Over a period of 3 years, 124 cases of patients with cirrhosis were hospitalized in the hepato-gastroenterology department. The average age was 54.24 (19 - 91 years) with male predominance, a sex ratio of 1.19. In the history, viral hepatitis was known in 9 patients (9.6%). The causes of hospitalizations were gastrointestinal bleeding, hepatic encephalopathy, infection of ascites fluid respectively in 40%, 17% and 5.6%. Viral infections B and C rank first among etiologies in 35 cases (29%), followed by portal thrombosis in 17 cases (11.29%) and alcohol in 7 cases (5.6%). Distribution of the child: A in 50 cases (40%), B in 25 cases (20%), C in 8 cases (6%). The main complications that occurred during the course were: digestive hemorrhage in 50 cases (40.3%), hepatic encephalopathy in 22 cases (17%), death in 12 cases (9.6%), renal failure in 8 cases (6%), infection of ascites fluid in 7 cases (5.6%)) and hepatocellular carcinoma in 2 cases (1.6%). Conclusion: viral causes are still the main cause of cirrhosis in our population with heavy morbidity and mortality mainly linked to digestive bleeding and complications of ascites. Key words: hepatic cirrhosis, various etiologies, viral hepatitis, heavy morbidity and mortality. **Introduction:** Cirrhosis is a serious and progressive disease and constitutes a public health problem in our country, with a high morbidity and mortality rate. The aim of this study is to analyse and update the epidemiological, clinical and evolutionary aspects of cirrhosis. Materials and Methods: This is a retrospective study carried out in the department of hepato gastroenterology with the aim of analyzing the characteristics of patients hospitalized for cirrhosis during the 3-year period between May 2017 and May 2019. The diagnosis of cirrhosis was made on the basis of clinical, biological, morphological and endoscopic arguments. Results: Over a period of 3 years 124 cases of patients with cirrhosis were hospitalized in the hepato gastroenterology department. The average age was 54.24 (19 - 91 years) with male predominance, a sex ratio of 1.19. 9 patients (9.6%) were known to have viral hepatitis. The causes of hospitalization were digestive hemorrhage, hepatic encephalopathy and ascites infection in 40%, 17% and 5.6% respectively. Viral infections B and C were the most common etiologies in 35 cases (29%), followed by portal thrombosis in 17 cases (11.29%) and alcohol in 7 cases (5.6%). Distribution of the child: A in 50cas (40%), B in 25 cases (20%),C in 8 cases (6%).The main complications occurred during the course of the evolution were: digestive hemorrhage in 50 cases (40. The main complications that occurred during the course of the disease were: digestive hemorrhage in 50 cases (40.3%), hepatic encephalopathy in 22 cases (17%), death in 12 cases (9.6%), renal failure in 8 cases (6%), infection of ascites fluid in 7 cases (5.6%) and hepatocellular carcinoma in 2 cases (1.6%). Conclusion: Viral causes are still the main cause of cirrhosis in our population with a high morbimortality related mainly to digestive hemorrhage and complications of ascites.

KEYWORDS: Hepatic cirrhosis, various etiologies, viral hepatitis, high morbimortality.

INTRODUCTION

Cirrhosis is a serious, progressive disease and poses by its frequency a real public health problem in the world, particularly in Africa. Indeed, it is one of the main causes of death by disease and thousands of people die from it every year.[1,2] However, the prevalence and incidence of cirrhosis in the world are not precisely known. This is because many cases are clinically latent.[3,4,5]

Studies on cirrhosis are essential tools for clinicians because they allow them to acquire information necessary for the prevention, diagnosis, treatment and follow-up of patients; and also The scarcity of Moroccan data on decompensated cirrhosis justified this work;

Indeed the objective of this work is to analyze and update the epidemiological, clinical, paraclinical, evolutionary and therapeutic aspects of cirrhosis collected within the hepato-gastroenterology department of the CHU Hassan II of Fez.

MATERIALS AND METHODS

This is a retrospective study carried out in the hepato-gastroenterology department with the aim of analyzing the characteristics of patients hospitalized for cirrhosis during the 3-year period. The diagnosis of cirrhosis was made on the basis of clinical, biological, morphological and endoscopic arguments.

For each file, the following parameters were studied: age, sex, clinical, para-clinical, etiological treatment of clinical data, etiological treatment of cirrhosis and evolution.

RESULTS

Over a period of 3 years; 124 cases of patients with cirrhosis were hospitalized in the hepato-gastroenterology department. The average age was 54.24 (19 - 91 years) with male predominance, a sex ratio of 1.19.

In the background; The distribution was as follows, Atcd of hypertension by rupture of the Esophageal varicosis vein in 33% (N: 41), diabetes in 25% (N: 31) including 22% (N: 7) associated with hypertension, viral hepatitis was known in 9.6% (N: 12), Alcoholism was noted in 6% (N: 8) and a history of jaundice was found in 1.6% (N: 2).

Table I: Mode of discovery of cirrhosis in our series.

Discovery Mode	N(%)
Lucky find	22 (17%)
Complications	99 (79%)
Alteration of the general condition	43 (52%)
abdominal pain	21(25%)
Jaundice	12 (14%)
Fever	6 (7%)

Clinically, the macroscopic study of ascitic fluid was dominated by the citrine yellow appearance in 24% (N: 30) with protein levels below 15 g / l in 26% (N: 33).

Biologically, the abnormalities frequently encountered reflected hepatocellular insufficiency.

The prothrombin level was lowered to less than 55% in 19% (N: 24), hypoalbuminemia less than 35 g/L was found in 56% (N: 70).

The blood count was normal or disturbed with thrombocytopenia in 58% (N: 73) or anemia in 62% (N: 77).

Hyper gammaglobulinemia objectified to 2 times the normal in 11% of cases (N: 14) with autoimmunity assessment of 1 positive intention in 8% of cases (N: 10), including 5 cases with (Ac AAN + and anti ac type M2+ mitochondria) and 4 cases with positive anti-mitochondrial type M2 Ab and 1 case (AAN+, anti-liss muscle Ab+, type M2+ anti-mitochondrial Ab),

And a positive 2nd intention assessment in 1 case with anti ALS + ac, Wilson's disease serology (low ceruloplasmin at 0.05 g/l, high cupruria at 1291 microg/l, normal cupremia) positive in 0.8% of cases (N:1).

Liver biopsy was performed in 4% of cases (N: 5) objectifying 2 cases of Hepatocellular carcinoma and 2 cases of chronic active hepatitis and 1 normal case.

Of the 124 patients, 50 cases (i.e. 40%) were classified Child A and 25 cases (i.e. 20%) ChildB and C in 8 cases (6%).

abdominal ultrasound most often objectified a dysmorphic liver in 90% (N: 112), heterogeneous in 7% (N: 9) including 8 cases associated with dysmorphism and nodular in 30% (N: 38), portal thrombosis encountered in 11% (N: 14) of cases and cavernoma in 4% (N: 5).

the dosage of alpha-fetoprotein was significantly elevated in 4% of cases (N: 5).

Esophageal varicosis vein were found in 66% of cases (N: 82) and gastric varices in 11% (N: 14).

Table II: Etiologies of cirrhosis in our series.

Etiologies of cirrhosis	N(%)
viral infections B and C	44 (35 %)
portal thrombosis	14(11 %)
Alcohol	8(6%)
Autoimmune hepatitis	2(1,6%)
wilson's disease	1 (0,8%)

Apart from symptomatic treatment, etiological treatment was instituted in 37% of cases (N: 47).

No patient underwent liver transplantation in our series.

Table III: Evolution of cirrhosis in our series.

Evolution	N(%)
Hepatocellular carcinoma	2(1.6%)
Death	12(9,6%)
Cause of death	**N(%)**
bleeding recurrence	4(33%)
cardiovascular arrest	3(25%
Sepsis	3(25%)
cardiovascular arrest	3(25%)
hepatic encephalopathy	1(8%)
pulmonary embolism)	1(8%)

Table IV: Mortality rate according to child score of child.

Score de child	Mortality rate
Stade A	**25%**
Stade B	**41,8%**
Stade C	**33, 33%**

DISCUSSION

The prevalence and incidence of cirrhosis worldwide are not precisely known. In France, the prevalence of this condition is estimated between 2000 and 3300 cases per million inhabitants, with an annual incidence of 150 to 200 cases per million and the number of deaths estimated at 1500 per year.[6]

In our study the average age of patients was 54.24 with extremes ranging from 19 and 91 years. Our results are similar to those of the Charles et al study[7] with an average age of 51 years with extremes ranging from 21 and 90 years and to those of Yassibanda et al in Mali in 2004, with an average of age of 52 years[8], and those of Sang Soo Lee et al[9], with an average age of 49.3 ± 14.2. middle-aged subject to 60 years old.[6]

We noted a male predominance with a sexratio of 1.19, in accordance with data from the literature.[10] Male sex could be an additional risk factor given the more frequent smoking and alcoholism habits in men, the role of lower Hbe Ag seroconversion in men than in women could also partly explain this male predominance.[11]

Men seem more exposed to cirrhogenic risk than women, but in a cirrhotic population, the risk of neoplastic transformation seems identical in both sexes.[12]

Late detection of esophageal varices explains the delay in prescribing prophylactic treatment for the rupture of these varices.

In our study, the antecedents are dominated by digestive hemorrhage by rupture of Esophageal varicosis vein in 33% (N: 41), followed by diabetes in 25% (N: 31), viral hepatitis in 9.6% (N: 12), Alcoholism in 6% (N: 8) and jaundice in 1.6% (N: 2). On the other hand Jaundice (63.5%), Alcohol (34%), Viral Hepatitis B (28%) were the main antecedents in the study by JOOUAVENE et al.[13]

The clinical symptomatology of cirrhosis is not specific, in our study the main general signs were an alteration of the general state in 52% (N: 43). This observation was similar to the studies of J O OUAVENE (13) with frequency of (88.5%), and studies in Burkina Faso.[14]

Signs of Hepatocellular Insufficiency and Portal Hypertension were present confirming the literature data

The absence of specific cirrhosis symptoms meant that most patients were admitted late, after the onset of cirrhosis complications; in our study 79% were admitted in a table of complications of which gastrointestinal bleeding was the main complication in 51% of cases (N: 51); this frequency is close to those found in Niger by Touré[15] which was 55.4; followed by ascites in 24%; this frequency is lower than that found in the Charles study (7) in 64.7% and the Sawadogo WA study.[16]

In Europe, the etiology would be dominated by chronic Ethylism (6). On the other hand in Africa, the first Etiology would be the infection by the Hepatitis B virus observation which had been made by Jean Claude Descenclos[17] et al, this observation is also found in our study with predominance of the infection by hepatitis B and C in 35% (N:44).

the macroscopic study of ascites fluid in our study was dominated by the citrine yellow aspect in 24% (N: 30), this frequency is lower than that reported by the study of J O OUAVENE (13) or (82 %).

Biologically, a prothrombin level was lowered to less than 55% in 19% (N: 24), hypoalbuminemia below 35 g/L was found in 56% (N: 70). Our frequencies are significantly lower to those obtained by Touré (15) who found a very low prothrombin level (<55%) in the majority of cases (91.9%).

Our patients were mostly at the Child A stage in 50 of the cases (i.e. 40%), B in 25 cases (i.e. 20%) and C in 8 cases (6%), on the other hand in the study by J O OUAVENE et al[13] and in the study by NDOBUBA et al.[18] had recovered the advanced Child–Pugh stages which were respectively C (49.03%), B (44.38%), c (65.5%), B (32.8%).

Literature data have shown the reliability of ultrasound in the diagnosis of liver cirrhosis.[19,20,21]

In our study, abdominal ultrasound objectified a dysmorphic liver in 90% (N: 112), heterogeneous in 7% (N: 9) including 8 cases associated with dysmorphism and nodular in 30% (N: 38). These data agree with those of the literature[22,23] and Portal thrombosis encountered in 11% (N: 14) of cases.

Digestive hemorrhage by rupture of Esophageal varicosis vein revealing cirrhosis one time out of three, suggests the systematic performance of upper digestive fibroscopy in the face of any suspicion of hepatic fibrosis.[24,25,26,27]

In our study, Esophageal varicosis vein were found in 66% of cases (N: 82), this proportion agrees with the data from Charle's study (7) in 53.3% and lower than those reported by Maïga et al[28] and Coulibaly[29] which were respectively 82.4% and 86%.

Apart from a liver transplant, there is no treatment that can cure cirrhosis because liver damage is irreversible. However, taken early and after treatment of the initial cause (alcoholism, hepatitis, etc.), the liver regenerates and the lesions can stabilize.[30]

In our study, the etiological treatment was established in 37% of cases (N: 47), on the other hand in the study by Sawadogo[16]; None of the patients received the specific anti-viral treatment.

CONCLUSION

The prevalence of cirrhosis of the liver poses a huge public health problem in our hospitals. It is associated with chronic carriage of HBV and HCV in more than half of cases. These complications in young adults are so formidable that today public health actions are needed, including vaccination against viral hepatitis B.

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