

Hepatocellular Carcinoma In Morocco

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Abstract

Background and objective: Hepatocellular carcinoma (HCC) is the leading primary malignant tumor of the liver, clinical observations showed that the number of its cases increased in our country. The aim of this work is to describe the epidemiological, clinical, paraclinical, histological and the treatment of hepatocellular carcinoma of liver cirrhosis.

Patients and methods: Descriptive and analytical retrospective study on the period of January first 2001 to 31 December 2015 for all hepatocellular carcinoma developed on cirrhotic livers, all data were collected from hospital records.

Results: Four hundred and forty patients with cirrhosis of the liver of HCC were registered. Two hundred seventy-five cases (62.5%) were male and 165 (37.5%) cases are women (sex ratio: 1.7). The mean age was 63.34 ± 14.12 years for both sexes. Hepatocellular carcinoma was discovered as a result of a screening ultrasound in 270 patients (61.3%). A liver cirrhosis was found on clinical examination in 144 patients (32.7%). The liver failure was observed in 88 patients (20%). The diagnosis was histological in 365 patients (82.9%). Three hundred seven patients had HCV serology + (69.7%). One hundred and thirty patients (41.5%) had received curative treatment, while 85 patients (19.5%) were treated with chemoembolization.

Conclusion: Hepatocellular carcinoma predominates in males. The HVC is the main etiology. Sixty one percent of hepatocellular carcinomas were asymptomatic and discovered as a result of a screening ultrasound.

Introduction

Hepatocellular carcinoma (HCC) is the most common tumor of primary malignant tumors of the liver. Incidence varies by age, gender, geographic region, and ethnicity. It is the fifth most common cancer in the world and is the second leading cause of cancer death, which makes it a public health problem [1,2]. Its annual incidence is estimated to approximately 850,000 cases [3]. It develops in the majority of cases on a liver cirrhosis, rarely on chronic liver disease, and exceptionally on a healthy liver [4]. Through this study, we aim to describe the epidemiological, clinical, paraclinic and therapeutic characteristics of HCC.

Material and method

We conveyed a retrospective, descriptive and analytical study from 1st January 2001 to 31st December 2015 in the hepatogastroenterology department, Ibn Sina Hospital, Rabat. All the CHCs confirmed by histological and/or biomorphological evidence were included in this study: "AFP > 400 ng/ml and very evocative imagery" [5]. We excluded from this study all CHCs developed on non-cirrhotic liver (chronic liver disease or healthy liver). Several variables were studied: age >18, sex, medical history, hospitalization pattern, clinical symptom, Biological data, sonography data, CHILD score, and therapeutic means.

Results

During the study period (2001-2015), 440 cases of HCC were collected.

Distribution by age and sex

The distribution by sex showed that 275 men (62.5%) are concerned and one 165 women (37.5%) with a 1.7 sex ratio. The average age in both sexes was 63.34 years ranging from 21 years to 89 years, with a

peak incidence in the 65-74 age group.

Medical history

We received 440 patients in our study divided into 2 major group. The 1st group (189 patients) was the control with no specific history. The 2nd group included one hundred and thirty patients (29.5%) who had one or more risk factors for hepatopathy (especially blood transfusion). 32 patients (7.2%) presented one or more episodes of jaundice, 92 patients were smokers and 44 were alcoholic, 42 patients were treated for diabetes, 39 patients were hypertensive and 15 asthmatics, and pulmonary tuberculosis in 15 patients.

Circumstances of discovery

Two hundred and seventy of our patients (61.3%) were asymptomatic and CHC was discovered following a screening ultrasound. One hundred and seventy patients (38.5%) consulted for clinical symptoms which included: Abdominal pain (25%), Jaundice (5.2), Asthenia (2.7%), Gastrointestinal bleeding (2.2%), Ascitis (1.8), and more unusual symptoms (1.5%) pruritus and alteration of the general state.

Clinical symptom

The right hypochondrium pain was present in 187 patients

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(42.5%). Clinical examination showed a cirrhosis liver in 144 patients (32.7%) (Table 1).

Biological data

The biological assessment showed liver cytolysis in 189 patients (42.9%), cholestasis in 108 patients, and eighty-eight patients (20%) had hepatocellular insufficiency with a PT <55%, albumin <35 g/l in 166 patients, Alphafetoprotein (AFP) was required in 345 patients (78.4%), and was >400 ng/ml in only 77 patients (17.5%).

Ultrasound data Abdominal ultrasound was performed in all patients. The liver was normal size in 202 patients (45.9%). A mononodular HCC was found in 223 cases (50.5%) (Table 2).

Histological data

Liver Biopsy Punction (LBP) was performed in 370 patients (84%). It allowed the diagnosis of CHC in 75% of the cases (330malades). LBP was inconclusive in 9 patients (2.4%). The 61 patients (13.6%) the diagnosis was made without recourse to histology (biomorphological criteria). The diagnosis of cirrhosis was histological in 330 patients (75%), whereas it was based on clinical and/or biology and/or morphology in 110 patients (25%). Since the imagery is limited and can't confirm the diagnosis, we rely on histology to do so.

Etiologies of cirrhosis

Three hundred and seven patients (69.7%) tested positive for viral hepatitis C (HCV). Viral hepatitis B (HBV) was present in 67 patients (15.2%). Four patients (0.9%) were considered chronic alcoholics. Sixty-one (13.8%) were found to have cirrhosis of indeterminate cause. Two cents Ninety-nine patients (66.1%) were classified as CHILD A, 129 patients (27.4%) were classified as CHILD B and 22 (6.4%) were

Table 1. Clinical symptom. *CVC: Collateral venous circulation, LLO: lower limbs oedema, HE: Hepatic Encephalopathy.

Clinical symptom	Number	%
Abdominal pain	187	42.5
Weight loss	160	36.3
Hepatomegaly	144	32.7
Ascitis	86	19.5
Splenomegaly	86	19.5
Jaundice	56	12.7
CVC	51	11.5
LLO	42	9.5
Pallor	32	7.2
Fever	25	5.6
HE	10	2.2

Table 2. Ultrasound data.

Ultrasound data	Number	%
Liver of normal size	202	45.9
Hepatomegaly	188	42.7
liver atrophy	23	5.2
1 nodule	223	50.6
2 nodules	115	26.1
3 nodules	47	10.6
> 3 nodules	55	12.5
Splenomegaly	107	24.3
Ascitis	102	23.1
Dilated portal vein	57	12.9
Dilated splenic vein	31	7
lymphadenopathy	10	2.2

classified as CHILD C (Table 3).

Treatment

Treatment with curative aim was indicated in 138 patients (41.5%). Eighty-five patients (19.3%) received palliative treatment. One hundred and forty-nine patients (33.8%) had no therapeutic treatment (Table 4 and 5).

Discussion

HCC occurs in more than 90% of cases in a patient with cirrhosis. The management of patients with cirrhosis has improved remarkably in recent years.

The main complications of cirrhosis, especially gastrointestinal bleeding and ascetic fluid infection are now being treated or prevented efficiently.

HCC therefore tends to become the leading cause of death in this condition [6].

The male predominance was clear in our series with a sex ratio at 1.7, which is comparable with the literature [4-17].

The average age was 63.3 years with a peak incidence in the 65-74 age group, comparable with French literature [4,8], whereas in Africa, HCC occurs at a younger age, HBV is the main cause of cirrhosis and its mode of transmission is essentially materno-fetal [13,17].

In our study, 61.3% of HCC were detected following a screening ultrasound, comparable with some series [8], whereas in others [14] no case of HCC was accidentally discovered, and all patients consulted for one or more symptoms.

The clinical aspects are those described in the European series [4,7,8], whereas in the African series, the majority of patients present advanced clinical aspects of tumors [6,13-17].

The ultrasonography shows usually, a heterogeneous liver, dysmorphic, associated with signs of portal hypertension [4,7,8,14,17].

In our study, the diagnosis of HCC was based on histology in 75% of cases, whereas in other, only 40% of HCCs were diagnosed

Table 3. The main etiologies of cirrhosis.

Etiology	Number	%
HVC	307	69.7
HVB	67	15.2
Alcohol	4	0.9
Unknown	61	13.8

Table 4. The main modalities of treatment.

Treatment	Number	%
Curative	138	41.5
Palliative	85	19.3
Medication	18	0.04
Abstention	149	33.8

Table 5. Types of curative treatment.

Type of treatment	Number	%
Alcoholization	79	17.9
Acetization	11	2.5
Radio-frequency	34	9.7
Surgical resection	59	13.1
Liver transplantation	1	0.2

by histology. The diagnosis of HCC was retained by biomorphology in 17.5% of cases. And in another series [18], 60% of the cases were diagnosed by biomorphology.

In our department, HVC is the principal etiology of cirrhosis, which is comparable with Italy and the United States [7,9,10,19]. In France, alcoholism is the main cause [4,7], on the other hand, cirrhosis is mainly due to HVB in Africa and Asia [4,6,7,13-15]. alcohol intoxication was found in 0.9% of cases attesting the role of this toxic in the genesis of liver disease. [14,20,21]. This result is much lower compared to Europe and Africa [4,8,10,13,17].

Forty-one per cent of our patients have undergone curative treatment (surgical resection or percutaneous treatment). This rate surpasses the ones described in the literature because more than half of our patients consulted at an asymptomatic stage and the majority presented fewer than three nodules.

In Africa [13], all patients were outside any therapeutic curative resource. meanwhile in another series [8], only 25.8% of the patients had received a curative treatment.

The early discovery of HCC through screening ultrasounds in our series has led to improve therapeutic management.

Conclusion

HCC predominates in males with a peak frequency in the 65-74 age groups. HCV remains the predisposing affection. Sixty one percent of our patients were asymptomatic during the discovery of HCC, hence the interest of screening. Since the imagery is limited and can't confirm

the diagnosis, we rely on histology to do so. Screening programs were very useful in developing curative treatment.

References

1. Szalat A, Durst R, Cohen A, Lotan C (2005) Use of polytetrafluoroethylene covered stent for treatment of coronary artery aneurysm. *Catheter Cardiovasc Interv* 66: 203-208.
2. Syed M, Lesch M (1997) Coronary Artery Aneurysm: A Review. *Prog Cardiovasc Dis* 40: 77-84.
3. Cohen P, O'Gara PT (2008) Coronary artery aneurysms: a review of the natural history, pathophysiology, and management. *Cardiol Rev* 16: 301-304. [[Crossref](#)]
4. Díaz-Zamudio M, Bacilio-Pérez U, Herrera-Zarza MC, Meave-González A, Alexanderson-Rosas E, et al. (2009) Coronary artery aneurysms and ectasia: role of coronary CT angiography. *Radiographics* 29: 1939-1954. [[Crossref](#)]
5. Tunick PA, Slater J, Kronzon I, Glassman E (1990) Discrete atherosclerotic coronary artery aneurysms: a study of 20 patients. *J Am Coll Cardiol* 15: 279-282. [[Crossref](#)]
6. Harandi S, Johnston SB, Wood RE, Roberts WC (1999) Operative therapy of coronary arterial aneurysm. *Am J Cardiol* 83: 1290-1293. [[Crossref](#)]
7. LaMotte LC, Mathur VS (2000) Atherosclerotic coronary artery aneurysms: eight-year angiographic follow-up. *Tex Heart Inst J* 27: 72-73. [[Crossref](#)]
8. Bajaj S, Parikh R, Hamdan A, Bikina M (2010) Covered-stent treatment of coronary aneurysm after drug-eluting stent placement: case report and literature review. *Tex Heart Inst J* 37: 449-454. [[Crossref](#)]
9. Di Mario C, Inglese L, Colombo A (1999) Treatment of a coronary aneurysm with a new polytetrafluoroethylene-coated stent: a case report. *Catheter Cardiovasc Interv* 46: 463-465. [[Crossref](#)]
10. Ohtsuka M, Uchida E, Yamaguchi H, Nakajima T, Akazawa H, et al. (2007) Coronary aneurysm reduced after coronary stenting. *Int J Cardiol* 121: 76-77. [[Crossref](#)]