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Original Research

Demographic and Clinical Profile in Patients with Liver Cirrhosis

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ABSTRACT:

Background: Liver is an interesting organ with high regenerative capacity and complex functions. Cirrhosis is defined as the histological development of regenerative nodules surrounded by fibrous bands in response to chronic liver injury, that leads to portal hypertension and end stage liver disease. Hence; the present study was undertaken for assessing the demographic and Clinical Profile in Patients with Liver Cirrhosis. **Materials & methods:** 50 patients suffering from cirrhosis of either sex were enrolled. Physical examination was concentrated to detect stigmata of chronic liver disease like clubbing in fingers and toes, central and peripheral cyanosis, presence of spider angioma, telangiectasia, jaundice, collateral veins in abdomen, ascites, level of consciousness, splenomegaly, dyspnoea, peripheral edema, palmar erythema and pleural effusion for underlying etiology. All the patients were investigated for haematological tests. All the patients were graded according to Child Pugh Score on the basis of increasing severity as follows: Grade A, Grade B and Grade C. **Results:** Alcohol was the etiologic profile in 62 percent of the patients while NASH and hepatitis C was the etiologic profile in 16 percent and 12 percent of the patients respectively. According to child Pugh score, 58 percent of the patients were of grade B while 22 percent of the patients were of grade C. **Conclusion:** Liver cirrhosis is more common among adult males with alcohol being the most common etiologic profile.

Key words: Clinical profile, Liver Cirrhosis

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INTRODUCTION

Liver is an interesting organ with high regenerative capacity and complex functions. The liver is also under the great load of conducting various functions for the survival of the host, including detoxification, breakdown of red blood cells and substances, synthesis of proteins and hormones, and storing glycogen, as well as holding a reservoir of blood. Cirrhosis is defined as the histological development of regenerative nodules surrounded by fibrous bands in response to chronic liver injury, that leads to portal hypertension and end stage liver disease. Liver fibrosis results from the perpetuation of the normal wound healing response resulting in an abnormal continuation of fibrogenesis (connective tissue production and deposition).[1- 3]

The etiology of cirrhosis can usually be identified by the patient's history combined with serologic and histologic evaluation. Alcoholic liver disease and hepatitis C are the most common causes in the Western world, while hepatitis B prevails in most parts of Asia and sub-Saharan Africa. After the identification of the hepatitis C virus in 1989 and of non-alcoholic steato-hepatitis (NASH) in obese and diabetic subjects, the diagnosis of cirrhosis without an apparent cause (cryptogenic cirrhosis) is rarely made.[4- 6]

The clinical consequences of cirrhosis-related cardiovascular dysfunction are evident during and after Liver transplantation, because the hemodynamic system is further compromised by the effect of anesthesia, mechanical ventilation, and surgical

clamping, with a significant reduction in the cardiac output.[7, 8] Hence; the present study was undertaken for assessing the demographic and Clinical Profile in Patients with Liver Cirrhosis.

MATERIALS & METHODS

The present study was undertaken in the department of general medicine for assessing the demographic and Clinical Profile in Patients with Liver Cirrhosis. Ethical approval was taken from the institutional ethical committee and written consent was obtained from all the patients after explaining in detail the entire research protocol. 50 patients suffering from cirrhosis of either sex were enrolled. Physical examination was concentrated to detect stigmata of chronic liver disease like clubbing in fingers and toes, central and peripheral cyanosis, presence of spider angioma, telangiectasia, jaundice, collateral veins in abdomen, ascites, level of consciousness, splenomegaly, dyspnoea, peripheral edema, palmar erythema and pleural effusion for underlying etiology. All the patients were investigated for haematological tests. All the patients were graded according to Child Pugh Score on the basis of increasing severity as follows: Grade A, Grade B and Grade C. All the results were recorded and analysed by SPSS software.

RESULTS

Mean age of the patients was 52.8 years. 54 percent of the patients belonged to the age group of 40 to 60 years. 90 percent of the patients were males while the remaining were females. Alcohol was the etiologic profile in 62 percent of the patients while NASH and hepatitis C was the etiologic profile in 16 percent and 12 percent of the patients respectively. According to child Pugh score, 58 percent of the patients were of grade B while 22 percent of the patients were of grade C.

Table 1: Age-wise and gender-wise distribution

Variable		Number of patients	Percentage
Age group (years)	Less than 40	6	12
	40 to 60	27	54
	More than 60	17	34
Gender	Males	45	90
	Females	5	10

Table 2: Distribution of subjects according to Etiology profile

Etiologic profile	Number of patients	Percentage
Alcohol	31	62
NASH	8	16
Hepatitis C	6	12
Others	5	10
Total	50	100

Table 4: Distribution of subjects according to Child Pugh Score

Child Pugh Score	Number of patients	Percentage
A	10	20
B	29	58
C	11	22
Total	50	100

DISCUSSION

Cirrhosis is a condition in which the liver slowly deteriorates and is unable to function normally due to chronic, or long lasting, injury. Scar tissue replaces healthy liver tissue and partially blocks the flow of blood through the liver. The appropriate clinical, biochemical and radiological markers with proven sensitivity for the diagnosis of renal disease in patients with cirrhosis have not been established yet. There are only recommendations for the unique form of kidney injury in patients with cirrhosis, the Hepato-renal syndrome. Renal pathology in patients with cirrhosis includes not only functional abnormalities (developed as a result of changes in hemodynamics, in renal auto-regulation and cardiac dysfunction) but structural abnormalities as well. Hence; the present study was undertaken for assessing the demographic and Clinical Profile in Patients with Liver Cirrhosis.

In the present study, mean age of the patients was 52.8 years. 54 percent of the patients belonged to the age group of 40 to 60 years. 90 percent of the patients were males while the remaining were females. Alcohol was the etiologic profile in 62 percent of the patients while NASH and hepatitis C was the etiologic

profile in 16 percent and 12 percent of the patients respectively. Peter G et al assessed whether QT interval prolongation is an independent risk factor for development of hepatorenal syndrome (HRS) in cirrhotic patients with acute variceal bleeding. Methods: 78 consecutive cirrhotic patients with acute variceal bleeding were included in the study. All patients were evaluated before bleeding (T0), during bleeding (T1) and 6 weeks later (T2). Results: HRS developed in 14 (17.9%) patients. QT corrected by heart rate (QTc) prolonged at T1, returning towards baseline at T2 (mean ± SD; from 424.0±10.2 to 461.2±17.6 to 426.1±8.8ms, P 468 ms and sodium.[11]

In the present study, according to child Pugh score, 58 percent of the patients were of grade B while 22 percent of the patients were of grade C. Nasr FM et al evaluated right and left ventricular systolic and diastolic functions in post hepatitis C liver cirrhosis patients using conventional echocardiography and tissue Doppler imaging. This study was conducted on 75 adults from inpatient and outpatient services of the Theodor Bilharz Research Institute (TBRI) hospital. They were divided into two groups: Group 1 included 50 patients with post hepatitis C liver cirrhosis; and Group 2 included 25 normal adults serving as a control group. At the tricuspid annulus, there were significant increases in the average Aa velocity ($P<0.01$), S velocity ($P<0.01$) and E/Ea ($P<0.05$) together with a statistically significant decrease in the average Ea/Aa and average Ea velocity ($P<0.01$) in Group 1 compared to Group 2.[12] Negru RD et al evaluated the extent of the QT interval prolongation, identify etiological and biochemical elements linked with it, and investigate the correlation with ventricular arrhythmic events related to etiology and severity of liver cirrhosis. They included 43 patients with cirrhosis and evaluated the maximal QT interval (maxQT), corrected QT interval (QTc) and its maximum (maxQTc), and ventricular arrhythmic events during 24 hour Holter monitoring. All parameters were prolonged and significantly increased in alcoholic cirrhosis when compared to viral C or B etiology ($P<0.05$). In liver cirrhosis, Holter monitoring confirms. QT interval prolongation particularly correlated with moderate severity, alcoholic etiology, and plasmatic level of total proteins and triglycerides but not with a higher incidence of ventricular arrhythmic events, except for hepatitis C virus etiology, supporting the novel hypothesis of a direct cardiac arrhythmic effect of this virus.[13]

CONCLUSION

Liver cirrhosis is more common among adult males with alcohol being the most common etiologic profile.

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