

**Original Article**

# Presentation of Complications of Chronic Liver Disease at a Tertiary Care Hospital

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## ABSTRACT

**Objectives:** To see presentations of various complications of chronic liver disease at a tertiary care hospital.

**Study Design:** Retrospective study

**Place and Duration of Study:** This Study was conducted at Medical Unit 1, Nishtar Hospital, Multan for a period of 6 months from 01-01-2010 to 30-06-2010.

**Patients and Methods:** Patients admitted at Medical Unit 1, Nishtar Hospital, Multan were included in the study. The medical record of these patients was checked. The data obtained were entered in SPSS-11 and analyzed.

**Results:** A total number of 50 patients were studied, 30 (60%) were male and 20 (40%) were female. Age of the patients ranged from 36-58 years. Mean age of the patients was  $45.39 \pm 4.77$  years. All the patients presented with fatigue, generalized weakness, oedema feet, anorexia and nausea. Twenty (40%) patients presented with jaundice. Abdominal distension was present in 42 (84%) patients. Twenty two (44%) patients were having altered consciousness. Twenty three (46%) patients presented with haemetemesis and 28 (56%) with malena. Low grade fever was present in 26 (52%) patients. Epistaxis was present in 2 (4%) patients. Previous history of jaundice was present in 40 (80%) patients and history of alcohol intake was present in 12 (24%) cases.

On examination, all the patients were found emaciated with protuberant abdomen. Twenty (40%) were clinically jaundiced. Oedema feet was detected in 48 (96%) patients. Palmar erythema was present in 26 (52%). Hepatic flaps were present in 24 (48%) patients. Shifting dullness and fluid thrill was present in 46 (92%) patients and engorged paraumbilical veins were present in 36 (72%) patients. Splenomegaly was seen in 36 (72%) patients.

Laboratory investigations revealed raised serum bilirubin in 26 (52%) patients and level of bilirubin was 3-6 mg/100 ml in most of the cases. ALT levels were raised in 33 (66%) patients above the twice of the upper limit of the normal value. Serum alkaline phosphatase was raised only in 1(2%) of patients. Platelet count was below 70000 in 32 (64%) patients. Anti HCV and HBsAg were detected in 38 (76%) and 12 (24%) patients respectively. Prothrombin time was prolonged  $\geq 5$  seconds (than control) in 36 (72%) patients. Serum albumin was less than 3 g/100 ml in all cases.

Abdominal ultrasonography revealed coarse echotexture with nodular liver in 46 (92%) patients. Ascites was detected in 48 (96%) patients. Two patients (4%) had hepatic mass.

Upper GI endoscopy revealed esophageal varices in 33 (66%) patients, fundal varices in 12 (24%) patients, gastric ulceration in 17 (34%) patients and duodenal ulceration in 11 (22%) patients.

**Conclusion:** Patients of chronic liver disease present in tertiary care hospital at a very late stage of the disease and most common presentations are ascites, hepatic encephalopathy, upper GI bleeding and low grade fever. Awareness may be created to motivate the patients to report to tertiary care hospital at an early stage, so that development of these complications can be managed at the very initial stage.

**Keyword:** Chronic liver disease, complications, cirrhosis.

## INTRODUCTION

Chronic liver disease is an important issue through out the world. It is mostly post viral in Pakistan<sup>1</sup>. Among hepatotropic viruses hepatitis B virus and hepatitis C virus are most important which may lead to chronic liver disease<sup>2-4</sup>.

Patients of chronic liver disease usually report to tertiary care hospital when the disease has progressed to advance stage and has been declared untreatable by the hakeems, quacks and healthcare pesonnels at primary

level. The progressive deterioration in chronic liver disease can not be stopped but the disease process may be delayed and early development of life threatening complications may be checked, provided the patient comes to tertiary care hospital at an early stage. Mortality in liver disease is directly related to its complications. The present study was designed to see the presentation of various complications of chronic liver disease at a tertiary care hospital.

## PATIENTS AND METHODS

The present study is a retrospective study conducted in admitted patients at medical unit-I Nishtar Hospital Multan. The data was collected for 6 months from 01-01-2010 to 30-06-2010. A total of 50 patients were studied. The data were entered in SPSS-11 and analyzed.

## RESULTS

A total number of 50 patients were studied, 30 (60%) were male and 20 (40%) were female. Age of the patients ranged from 36-58 years. Mean age of the patients was  $45.39 \pm 4.77$  years. All the patients presented with fatigue, generalized weakness, oedema feet, anorexia and nausea. Twenty (40%) patients presented with jaundice. Abdominal distension was present in 42 (84%) patients. Twenty two (44%) patients were having altered consciousness. Twenty three (46%) patients presented with haemetemesis and 28 (56%) with malena. Low grade fever was present in 26 (52%) patients. Epistaxis was present in 2 (4%) patients. Previous history of jaundice was present in 40 (80%) patients and history of alcohol intake was present in 12 (24%) cases.

On examination, all the patients were found emaciated with protuberant abdomen. Twenty (40%) were clinically jaundiced. Oedema feet was detected in 48 (96%) patients. Palmar erythema was present in 26 (52%). Hepatic flaps were present in 24 (48%) patient. Shifting dullness and fluid thrill was present in 46 (92%) patients and engorged paraumbilical veins were present in 36 (72%) patients. Splenomegaly was seen in 36 (72%) patients.

Laboratory investigations revealed raised serum bilirubin in 26 (52%) patients and level of bilirubin was 3-6 mg/100 ml in most of the cases. ALT levels were raised in 33 (66%) patients above the twice of the upper limit of the normal value. Serum alkaline phosphatase was raised only in 1(2%) of patients. Platelet count was below 70000 in 32 (64%) patients. Anti HCV and HBsAg were detected in 38 (76%) and 12 (24%) patients respectively. Prothrombin time was prolonged  $\geq 5$  seconds ( than control) in 36 (72%) patients. Serum albumin was less than 3 g/100 ml in all cases.

Abdominal ultrasonography revealed coarse echotexture with nodular liver in 46 (92%) patients. Ascites was detected in 48 (96%) patients. Two patients (4%) had hepatic mass.

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## DISCUSSION

Jaundice predicts bad prognosis in cirrhotic patients <sup>5</sup>. In present study jaundice was noticed in 20 (40%)

patients which shows considerable liver cell dysfunction. Pathak et al<sup>6</sup> in their study described raised serum bilirubin in 57.5% of cases while in our study it is in 40% of the cases. The difference is because he has conducted this study in alcoholics and might have included acute on chronic case of alcoholic disease so his percentage is a bit high. Distension of abdomen in cirrhotic patients is usually due to fluid in the peritoneal cavity. This ascites may be due to portal hypertension, sodium retention by the kidneys, arteriolar vasodilatation of the splanchnic blood vessels, increased splanchnic and hepatic lymph formation and most commonly due to hypoalbuminaemia <sup>7</sup>. Abdominal distension in our study was seen in 98% of cases and it has been described in 66.7% in another study<sup>8</sup>. But in their study number of cases of chronic liver disease were only 30. Therefore, the figure is low as compare to our study. Moreover, in our study, the cases were all admitted patients which were almost all in decompensated state and serum albumin was less than normal in all of our study cases, so ascites was present in 98% of cases and points towards advanced stage of disease. Hepatic encephalopathy is a neuropsychiatric state(usually reversible ) that complicates chronic liver disease<sup>9-10</sup>. It can occur in porto systemic shunting, with increased level of ammonia and presence of false neurotransmitters in brain. In our study 44% of the patients have hepatic encephalopathy while study conducted by Khokhar and Niazi<sup>11</sup> it was 18%. Here again the low frequency of hepatic encephalopathy is due to less number of study cases, moreover this study was conducted in urban educated population of Islamabad which is more health conscious than our population in southern Punjab. Abdominal ultrasonography revealed coarse texture with nodular liver in 46 (92%) of patients. Ascites was detected in 48 (96%) patients. Two patients had hepatic mass. Upper GI bleeding in our study was 46% while in study conducted by Khokhar and Niazi<sup>11</sup> it was 36% it may be due to the reason that they might have taken the cases which may be at initial stage and has not undergone decompensation. In our study 76% cases were positive for Anti HCV and 24% of the cases in our series were positive HBsAg. Low platelet count which is seen in 64% of the cases in our study might be due to hypersplenism.

## CONCLUSION

Patients of chronic liver disease present in tertiary care hospital at a very late stage of the disease and most common presentations are ascites, hepatic encephalopathy, upper GI bleeding and low grade fever.

Awareness may be created to motivate the patients to report to tertiary care hospital at an early stage so that development of these complications can be managed at the very initial stage.

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