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Gastroenterology

Clinical profile of patients with Chronic liver disease in North west Tamilnadu

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ABSTRACT

Background: Chronic liver disease (CLD) and its sequelae form a major part of gastroenterological workload in any large hospital. Over the years, with the advent of newer techniques for identification of viruses, biochemical markers, and newer histopathological methods, it is now possible to enlarge the classification and attach more informative labels to such cases.

Methods: Study Design : Descriptive study .The study was conducted in Government Mohan Kumarmangalam Medical college Hospital, Salem, during the period January 2014 to February 2017. 100 consecutive adult patients admitted to the male and female wards of Medical Gastroenterology diagnosed to have CLD were included in the study.

Results: The 100 patients of chronic liver disease could be classified on clinicopathological as well on etiological basis. On clinic pathological grounds the patients could be divided as follows: Decompensated cirrhosis :60 Compensated cirrhosis: 24.NASH:3.HCC:3.CAH:10.Based on the evaluation of viral markers, alcoholic intake, previous blood transfusion and copper studies in a few cases, the patients could be grouped into several categories as follows: GroupA: Positive for only alcohol:23;GroupB:Positive for only HBV:22;GroupC:Positive for only HCV:3Group D: Postive for both HBV & alcohol:15;Group E: Positive for both HCV & alcohol: 1;Group F: NASH :3;Group G: Cryptogenic :28;Group H: Miscellaneous - Wilson's Disease:5..

Conclusion: Chronic liver disease is a major health problem in this area.60 out of 100 patients with CLD were related to Ethanol and HBV either singly or in combination. The incidence of HCV infection is very low in this part of the world (4%).A sizeable proportion (28%) belongs to the group of cryptogenic cirrhosis which calls for a lot of research in this sphere to detect new viruses or environmental factors responsible.The prevalence of NASH in patients with CLD is 3%.

KEYWORDS : Chronic liver disease, Clinical profile

Background:

Chronic liver disease (CLD) and its sequelae form a major part of gastroenterological workload in any large hospital. As well known, it is a disease with very high degree of morbidity and mortality. In the past, CLD was broadly divided into alcoholic and post hepatitis varieties. Over the years, with the advent of newer techniques for identification of viruses, biochemical markers, and newer histopathological methods, it is now possible to enlarge the classification and attach more informative labels to such cases. Even among virus related CLD, a large group so far labeled as Non A, Non B, identification of Hepatitis C has become an established practice. Despite these transformations, a small proportion of patients fail to demonstrate any known viral marker raising further questions.

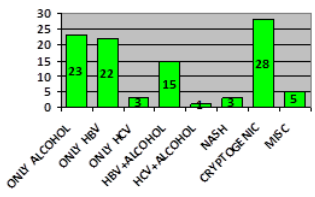
There are now well documented studies on the beneficial effects of antiviral agents in the management of chronic hepatitis B and C. Hence it becomes almost mandatory to determine if a given case of CLD is virus related or not, so that a decision regarding the use of such antiviral agents can be made.

AIM : 1.To study about the various clinical, biochemical and pathological presentations of chronic liver disease and to estimate their relative frequencies. 2.To estimate the contribution of hepatitis virus B & C in causing chronic liver disease in urban setup.3.To find out the relative prevalence of NASH in patients diagnosed to have chronic liver disease (CLD)

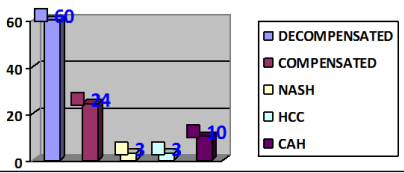
METHODOLOGY: Study Design : Descriptive study .The study was conducted in Government Moham Kumarmangalam Medical college Hospital, Salem, during the period January 2014 to February 2017. 100 consecutive adult patients admitted to the male and female wards of Medical Gastroenterology diagnosed to have CLD were included in the study. INCLUSION CRITERIA: 1.Symptoms of parenchymal liver disease for more than 6 months in the form of continuous or fluctuating jaundice, unexplained asthenia, poly arthralgia, fever, anorexia, pruritus in association with significant elevation of transaminases or histo-pathological evidence of chronic hepatitis.2. High SAAG ascites with evidence of portal hypertension by clinical, and ultra sound examination complemented by Doppler whenever required. Persistent elevation of transaminase in patients symptomatic over a period of 6 months.Portal hypertension was deemed to exist in the presence of esophageal or gastric varices during GI endoscopy, anterior abdominal wall veins with flow away from the umbilicus, ultra sound evidence of collateral venous circulation and portal vein diameter of > 1.1 cm with or without splenomegaly. EXCLUSION CRITERIA :Patients diagnosed as acute viral hepatitis, resolving within 6 months,Liver secondaries with known or unknown primaries,Obstructive jaundice as evidenced by ultrasound, or ERCP,Cases diagnosed to have EHPVO or non cirrhotic portal hypertension. Portal hypertension without ascites where liver biopsy could not be done.Cases where EHPVO or NCPF could not ruled out with certain after exhaustive testing

Thus 100 consecutive cases satisfying the above criteria were included in the study comprised of males and females. The youngest was aged 15 years and the oldest being 65 years. All patients hailed from Salem City or its suburbs within 75 km radius. A careful and complete history, as well as clinical examination and relevant investigations as per proforma was performed. Following investigations were done for all patients..

ETIOLOGICAL GROUP



CLINICO PATHOLOGICAL GROUP



RESULTS: The 100 patients of chronic liver disease could be classified on clinicopathological as well on etiological basis. On clinic pathological grounds the patients could be divided as follows: Decompensated cirrhosis :60 Compensated cirrhosis: 24.NASH :3.HCC:3.CAH:10.Based on the evaluation of viral markers, alcoholic intake, previous blood transfusion and copper studies in a few cases, the patients could be grouped into several categories as follows: GroupA: Positive for only alcohol:23;GroupB : Positive for only HBV:22;GroupC:Positive for only HCV:3Group D: Postive for both HBV & alcohol:15;Group E: Positive for both HCV & alcohol: 1;Group F: NASH :3;Group G: Cryptogenic :28;Group H:

Miscellaneous - Wilson's Disease:5. On comparing the variables, in the age group of 15-35 yrs, alcohol was the only etiology detected, where as both HBsAg and anti HCV antibodies were not found. In the age group of 36 – 60years alcohol was the only aetiology in 15 patients, both alcohol and HBV were present in 15 patients and both alcohol and HCV were present in 1 patient. In the age group of > 60years, alcohol was the only etiology in 3 patients and again in this age group, there was no viral markers detected.

When comparing alcohol abuse and sex, alcohol alone had been detected as etiological factor in 21 male patients and 2 females and combined HBV & alcohol was present in 13 male patients and 2 female patients. Alcohol and HCV was detected as the etiological factor in 1 male patient.Regarding distribution of various etiological factors in the 3 age groups, HBV alone was responsible in 5, 16 and 1 in the age groups of 15-35, 36-60 and >60 years respectively. Both HBV and alcohol was more common in the age group of 36 – 60years, cryptogenic cirrhosis was more common in the age group of 36-60 years, where it is present in 17 patients. Cryptogenic cirrhosis was present in 3 and 8 patients respectively in the age group of 15-35 years and >60 years respectively. NASH was common in the age group of 36 – 60 yrs. All the 3 cases in this study belonged to that age group. Regarding Wilson's disease, all the 5 patients belonged to the age group of 15 – 35 years. All HCV related cirrhosis belonged to the age group of 36 – 60 years. Regarding the sex and etiological factors, cryptogenic cirrhosis was present in 20 female and 8 male patients. Wilson's disease was present as aetiology in 2 females and 3 male patients. All the three NASH patients were females. All HCV related cirrhosis were found in male patients. All HCV related CLD were found in the age group of 36 – 60 years. Regarding NASH, all the 3 patients belonged to the age group of 36 – 60 years. All the 3 NASH patients were females.In the characterization of Wilson's disease by age and sex, it was all found in the age group of 15 – 35 yrs, and 3 patients were male and 2 patients were female.Among the 3 cases of HCC recorded alcohol abuse was present in one patient only, even that was along with HBV. In HCC, HBV was present in all the 3 cases. In 2 patients HBV alone was present as the etiological factor and in 1 patient it was present along with alcohol.In NASH, all the 3 patients were obese. Hypertriglyceredemia was present in 2 out of 3 patients and diabetes was present in one patient.In HCV related CLD, thrombocytopenia was present in all the 4 cases.In cryptogenic cirrhosis, Hypertriglyceredemia was found in 16 out of 28 patients and diabetes was found in 13 out of 28 patients. Promiscuity was found in 3 patients of cryptogenic cirrhosis. 15 out of 28 patients with cryptogenic cirrhosis were obese.13 patients received blood transfusions in the past. The transfusions were mostly for UGI bleeding, post surgery or unknown indications. It was not possible to ascertain whether blood transfused came from related donors or professional donors. All the 13 had some identifiable etiological factor to explain the CLD.

Discussion: As set out under objectives of the study, the data collected from 100 patients was analysed with respect to the presence and distribution of various virological markers, clinicopathological features and other etiological factors.From the results, it is seen that 39 out of 100 were positive for significant alcohol consumption, 37 had markers for HBV, 4 of them were positive for anti HCV antibodies and 31 were negative for alcohol, HBV, HCV and blood transfusion.

Alcoholic Liver Disease and Hepatitis B & C: 39 out of the 100 patients admitted using significant amounts of alcohol over a period of not less than 10 years. Only in 23 patients, alcohol was the sole recognizable etiological factor and these patients could be safety labeled as having alcohol induced chronic liver disease.In the remaining 16 patients, there were additional etiological markers noted .15 patients had HBV and 9 patients had received blood transfusions in the past. Among the 9 patients with H/O Blood transfusion, alcohol was the sole etiological factor in 3 patients and HBV was the additional etiological factor in the remaining 6 patients. The question that arises in this group of 16 patients having multiple etiological factors, is the relative contribution of each of them in the production and continuation of CLD. Even if we assume that in 6 patients out of these 16 patients, the presence of hepatitis B viral markers is incidental due to blood transfusion, in the remaining 9 patients there is no past h/o blood transfusion.In our study, 23 out of 39 patients with alcohol consumption did not have any viral markers. Gross comparison of histopathological appearance of these two groups i.e. (HBV positive, HBV negative ALD) did not reveal any notable differences in features, hence it appears that alcohol is a common etiological factor in CLD. In many cases coexistence of hepatitis B was noted and in a small percentage of cases blood transfusion and hepatitis C were associated. With regard to the presence of Hepatitis B markers it looks as though the clinical picture and outcome do not differ much in the two groups. The number of patients positive for HCV is too small to draw any conclusions as to how alcoholic liver disease will be modified by coexisting HCV.

CLD and Hepatitis C: One of the main aims of this study is to estimate the prevalence of hepatitis C virus infection in patients with CLD in general and alcohol related CLD in particular. HCV accounts for 20% of acute hepatitis, 70% of chronic hepatitis, 40% of end stage cirrhosis, 60% of hepatocellalar carcinoma and 30% liver transplants. Only 4 patients out of 100 had HCV antibodies implying previous infection with HCV. All cases due to HCV were found in the age group of 35-60 yeas. All the 4 of them were male. one patient had also h/o alcohol consumption. None of the patients had concomitant HBV infection. H/o blood transfusion in the past was present in none of the 4 patients. All the 4 patients presented with decompensated liver disease. None of them presented with HCC. In our study, the patients with HCV related CLD all belonged to the age group of 35-60 years with mean age of 51 years. Our patients were relatively elderly, when compared to HBV related and alcohol related CLD. According to Fattorich G et al, patients with HBV infection may present with cirrhosis about 10 years earlier than those with HCV infection. HCV infection also tends to be associated with a higher risk of decompensation[1]. In our study, HBV alone is the etiological factor in 5,16 and 1 patients respectively in the age group of 15-35, 36-60 and > 60 years.

All the 15 patients with both alcohol and HBV as the etiological factor belonged to the 36-60 years age group. The mean age of the patients with HBV infection was 39 years which is again less than that of those with HCV related CLD. Among the 37 patients with HBV. Only 8 of them belonged to compensated liver disease. All of the 15 patients with alcohol as the additional etiological factor belonged to decompensated liver disease. Caldwell et al reported 30% incidence of anti HCV antibody in ALD, compared to 2% in healthy controls and other studies have recorded 25-52% incidence [2]. In our study only 1 patient out of 39 with ALD had anti HCV positivity (2.6%) which is far lower than the figures from American and Western European studies.

In two Indian studies, Prof B.N. Tandon and colleagues [3] have reported about 45% incidence of HCV in CLD and Amarpurkar et al from Bombay have shown 17% incidence in their cases [4].

Non alcoholic steato hepatitis (NASH): One of the main aim of this study is to evaluate the contribution of NASH to CLD. Obesity, diabetes and hypertriglyceredemia are the main risk factors associated with NASH. In our study, all the 3 NASH patients were female in the age group of 36-60 years. Among them, all of them were obese with BMI of > 30. Two out of 3 patients had hypertriglyceredemia and 1 patient had diabetes. HCV RNA assay was done in 16 patients including who were diagnosed as NASH, who demonstrated variable degrees of steatosis and steatohepatitis on USG and elevated liver enzymes and HPE. All the 16 cases were HCV RNA negative. The same risk factors like obesity etc are associated with advanced hepatic fibrosis in patients with chronic hepatitis C. [5,6,7]. All the patients had clinical jaundice and hepatomegaly. None of them had varices on endoscopic examination. In our study, NASH contributed to only 3% cases of chronic liver disease..

Cryptogenic cirrhosis: The aetiology is unknown and this represents a heterogeneous group. Cirrhosis can be difficult to ascribe to NASH if histologic features have been lost (or) obscured by cirrhotic nodules. Such nodules have been shown occasionally to have focal fatty

changes. Serial biopsy studies have established the progression of NASH to a stage of "bland" cirrhosis. The significantly increased frequency of steatosis and steatohepatitis after transplantation for cryptogenic cirrhosis further supports this relation.In our study, Cryptogenic cirrhosis was present in 20 females and 8 males. It was more common in the age group 36-60 years, where it is present in 17 patients. It was present in 3 and 8 patients respectively in age groups 15-35 and >60 years**.** Hypertriglyceridemia was found in 16 out of 28 patients. Diabetes in 13 out of 28 patients and 15 patients were obese (BMI > 30). Promiscuity was associated in 3 patients.The risk factors of NASH were present in majority of patients with Cryptogenic cirrhosis. It may be speculative that NASH may be a predisposing factor in the development of cirrhosis in these patients.

Conclusion: 1.Chronic liver disease is a major health problem in this area.60 out of 100 patients with CLD were related to Ethanol and HBV either singly or in combination.The incidence of HCV infection is very low in this part of the world (4%).A sizeable proportion (28%) belongs to the group of cryptogenic cirrhosis which calls for a lot of research in this sphere to detect new viruses or environmental factors responsible. The prevalence of NASH in patients with CLD is 3%.Obesity, Hypertriglyceredemia and Diabetes were present in patients with NASH either singly or in combination.

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