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ANALYSIS OF RISK FACTORS, CLINICAL FEATURES AND TREATMENT PATTERN IN CHRONIC LIVER DISEASE PATIENTS AT A TERTIARY CARE TEACHING HOSPITAL: A PILOT STUDY

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ABSTRACT

Chronic liver disease is one of the most prevalent disease in the world. It consists of a wide range of liver pathologies which include inflammation (chronic hepatitis), liver cirrhosis, and hepatocellular carcinoma. It is a serious disease that is associated with significant morbidity and mortality. The most common causes of CLD, hepatitis B virus and hepatitis C virus, have been estimated to affect 360 million and 200 million people worldwide respectively. In addition, alcohol is another main cause of end stage liver disease worldwide. Smoking and alcohol contributes major risk factor for CLD. Most chronic liver disease is symptomless and when symptoms do develop, they are often vague such as tiredness, weakness, loss of appetite, jaundice, abdominal distension, pedal edema, and nausea. Complications include ascites, encephalopathy, varices and liver cancer. Patients with liver disease often require drug treatment, either for their liver disease and its complications, or for other concomitant conditions. Prescribers should be aware of the way in which drug response can be affected in patients with liver disease, in order to ensure safe and effective therapy. The management strategy of liver disease is a combination of treating the symptoms and complications that arise, as well as drug therapies relevant to the specific underlying diagnosis. This study was carried out to evaluate risk factors, clinical features, complications and treatment pattern in general medicine department to improve awareness among physicians and society. (CLD – Chronic Liver Disease).

KEYWORDS: Chronic liver disease, Risk factors, Complications, Treatment.

INTRODUCTION

Chronic liver disease is the endpoint of continual liver damage by enticing factors. It is the most common route to hepatic failure and often ends in cirrhosis. Chronic liver disease is characterized by scarring and destruction of the liver tissue.[1] Early changes, such as 'fatty liver' (a buildup of fat in the liver cells) can progress via inflammation (hepatitis) and scarring (fibrosis) to irreversible damage (cirrhosis). At this point, the liver will not be able to regenerate itself though further damage can be averted.

Most chronic liver disease is symptomless (silent) and when symptoms do develop, they are often vague such as tiredness, weakness, loss of appetite and nausea. Once the liver begins to fail (or decompensate) symptoms and signs include bruising easily; yellow skin (jaundice); itching and accumulation of fluid in legs (oedema) or the abdomen (ascites).[2] There are variety of risk factors and diseases that cause chronic liver disease.

The impact of smoking and alcohol are directly associated with liver disease mortality and accounts for increased social and economic costs.[3] Chronic liver disease occurs throughout the world irrespective of age, sex, region or race. Liver disease rates are steadily increasing over the years.[2] Due to continuosly improving medical treatment, many formerly lethal diseases have nowadays become chronic. Patients may suffer from specific complications of chronic liver disease such as hepatic encephalopathy, ascites and variceal bleedings, hepato renal syndrome and hepatocellular carcinoma.

Furthermore, fatigue, joint pain, pruritis, loss of appetite, depression, abdominal pain, worriess about complications of the disease are associated with chronic liver disease.[4] Chronic liver disease cannot be cured. Hence it is imperative to prevent further exacerbation of the disease and to optimize the length of time between hepatitis and the development of cirrhosis. Patients with

liver disease often require drug treatment, either for their liver disease and its complications, or for their concomitant conditions. Prescribers should be aware of the way in which drug response can be affected in patients with liver disease, in order to ensure safe and effective therapy.[5,13] Chronic liver disease is closely associated with lifestyle, and public enlightenment of the life style factors is important in reducing prevalence of chronic liver disease.[14]

The present study aims to examine the risk factors, clinical manifestations, complications and treatment pattern of chronic liver disease thereby creating awareness of liver disease to society and knowledge of burden of a disease helps in establishment of public health priorities and in guiding preventing programs.[7]

METHODOOLOGY

This cross sectional study was conducted in General medicine department at a 1000 bedded multispecialty institution, SVRRGG hospital, by taking ethical committee approval from Sri Padmavathi School Of Pharmacy. The study was conducted between October to November 2016. The sample size was 50 patients. Data was collected from male patients with their willingness. Inclusion criteria were those who are diagnosed to have chronic liver disease and patients with certain complications. Patients whose data was not available, who were not available at the bed side and those with multi organ involvement were excluded from the study. The data was collected using specially designed proforma including demographic details like age, gender, religion, occupation, disease details, smoking and alcoholism, past medical and medication history, drug chart. The risk factors were analyzed based on the duration of smoking and alcoholism, admitting diagnosis, past medical and medication history. The clinical features, complications and treatment pattern were obtained from the case sheets and evaluated.

RESULTS AND DISCUSSION

Table 1: Age wise distribution.

Age Group	No. of Patients	Percentage
25-36 years(young age)	8	16%
40-50 years (middle age)	24	48%
55-72 (old age)	18	36%

This table depicts that most of the people with chronic liver disease were belong to middle age group (40-50 years) 48%, followed by old age group (55-72) 36% and young age group (25-36) 16% this is because of their personal habits like smoking and alcoholism, altered life style, poor dietary habits and comorbidities associated which can exacerbate the existing medical condition leading to chronic liver diseases. All were male patients.

Table 2: Risk factors for chronic liver disease.

Risk Factors	No. of Patients	Percentage
Alcoholism	20	40%
Smoking	10	20%
Smoking & alcoholism	16	32%
Others (underlying diseases)	2	4%

This table illustrates that alcoholism is the major risk factor among all despite of the underlying cause. Most of the patients (40%) had risk factor of alcoholism and among these, even chronic alcoholics and smokers starting from 10 to more than 30 yrs (15 patients) of habit were also there, which contributed to almost 32% of risk for the development of chronic liver disease. It is also interesting to note that all those who had the habit of alcoholism also had the smoking habit. Alcohol consumption is directly associated with liver disease mortality and accounts for increased social and economic costs. It is noticed that even short period of abstinence after early decompensations improves liver function and quality of life. However, recidivism is very high and patients are not motivated to leave the habit on long term even with psychiatric support.[8] Smoking is an underestimated risk factor for liver disease. Heavy smoking yields toxins which induce necroinflammation and increase disease progression of liver. It increases the risk of developing hepatocellular carcinoma among chronic liver disease patients.[9]

We observed that no female had the habit of smoking, alcoholism or even pawn chewing.

Table 3: Clinical Manifestations.

Admission Complaints	No. of Patients	Percentage
Abdominal distension	40	80%
Pedal edema	22	44%
Fever	15	30%
Breathlessness	12	24%
Malena (Blood in stools)	10	20%
Others (underlying condition)	10	20%

This table illustrates that abdominal distension is the major clinical feature (80%) in patients of chronic liver disease followed by pedal edema (44%), fever (30%), breathlessness (24%), malena (20%) and others (20%) include vomitings, facial puffiness and cough.

Table 4: Complications of respiratory failure.

Complications	No. of Patients	Percentage
Ascites	30	60%
Varices	10	20%
Hepatic encephalopathy	7	14%
Hepatorenal syndrome	3	6%

Ascites, varices, hepatic encephalopathy are major complications of liver diseases. It was observed that 30 patients had ascites, 10 patients had varices, 7 patients had hepatic encephalopathy and 3 patients were suffering from hepatorenal syndrome. These complications are markers of disease progression and depict diseases severity in its respective order.

Table 5: Drug Prescribing Pattern

Drugs prescribed	No. of patients	Percentage
Symptomatic therapy	50	100%
Diuretics	40	80%
Vitamin supplements	35	70%
Laxative/Hyperosmotic	30	60%
Anti Hypertensives	26	52%
Gastrointestinal agent	18	36%
Volume expander	10	20%

We observed that symptomatic therapy contributed to the highest percentage which was given to provide symptomatic relief irrespective of underlying cause that included Pantoprazole, Paracetamol, Deriphylline (Theophylline + Etophylline), Tramadol, Ondansetron, Ambroxol hydrochloride, and Cetrizine. This is followed by diuretics (80%), vitamin supplements (70%), Laxatives (60%), anti hypertensive's (52%), gastrointestinal agents (36%) and volume expander (20%). Medications should be individualized depending upon the need, nutritional status, alternatives available and severity of disease.[12]

CONCLUSION

48% of patients belonged to age group of 40-50 years, middle aged group, which is active and productive mass of society. Alcoholism is the utmost risk factor found in 40% of patients which required frequent hospitalization adding to burden for health care system. Abdominal distension is the major clinical feature found in 80% of patients. Ascites is the crucial complication found in 60% of patients and Diuretic therapy is the eminent found in 80% and vitamin supplements are found in 70% of patients. The success of future therapy of chronic liver diseases should concern not only in studying the treatment strategies of the disease but also in improving patients quality of life. Mortality and morbidity associated with this disease is matter of serious economic loss to the nation and grief for the society. We recommended increased education, awareness about liver diseases, public health strategies and counseling programs about liver diseases and its impact on health care utilization of patients to improve wellbeing of Society.

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