# To Study Clinical Profile of Alcoholic Hepatitis with Special Reference to Discriminant Factor

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## I. INTRODUCTION

Alcohol consumption is associated with a wide range of adverse health and social consequences, both acute (e.g., traffic deaths, other injuries) and chronic (e.g., alcohol dependence, liver damage, stroke, cancers of the mouth and oesophagus). Research to date has suggested that alcoholism may or may not be progressive in nature<sup>1</sup>. Some people develop the symptoms of alcoholism after only months of heavy drinking, whereas other alcoholics may drink heavily for years before developing the disease.<sup>2</sup>

Alcohol problems, both those of individuals and those that affect society at large, continue to impose staggering social and economic burdens. In addition to negatively affecting health, a wide range of social ills including domestic violence, child abuse, fires and other accidents, and other crimes against individuals such as rape, robbery, and assault have all been linked to alcohol misuse<sup>3</sup>. An estimated 20 to 40 percent of patients in large urban hospitals are there because of illnesses that have been caused or made worse by their drinking<sup>4</sup>. The threshold for developing alcoholic liver disease in men is an intake of >80 gm g/d of alcohol for 10 years,

while women are at increased risk for developing similar degrees of liver injury by consuming 20-40 g/dl<sup>5</sup>.

Alcoholic liver disease (ALD) describes a spectrum of conditions ranging from reversible fatty liver to alcoholic hepatitis (AH), cirrhosis, and hepatocellular carcinoma  $(HCC)^{6}$ .

# II. AIMS AND OBJECTIVES

- 1. To study clinical presentation of alcoholic hepatitis.
- 2. To study various complication of alcoholic hepatitis.
- 3. To study various liver function tests and Discriminant factor as a predictor of outcome

# III. MATERIALS AND METHODS

- It was prospective observational study over the period of one year.
- All the patients were interviewed, examined and evaluated.
- All routine investigations like CBC, LFT, RFT, PT, INR, APTT, USG abdomen were done.
- Special investigations like IgM HEV, IgM HAV, HBsAg, HCV, HIV, etc. were done in selected patients to rule out other causes of hepatitis.
- The study was carried out in 100 consecutive patients admitted to tertiary care hospital with alcoholic hepatitis.
- Data entry and analysis was done in Microsoft excel through Descriptive statistic, 't' test and chi-square tests.

#### **INCLUSION CRITERIA<sup>7</sup>:-**

The study was on patients of tertiary care hospital who are:-

- 1) Alcoholic patients with sign and symptoms suggestive of Alcoholic hepatitis.
- 2) AST/ALT > 1
- 3) AST Increased two- to seven fold and <400 U/L but greater than ALT
- 4) ALT Increased two- to sevenfold and <400 U/L

## EXCLUSION CRITERIA<sup>8</sup>:-

- 1) Non-alcoholic patient,
- 2) Acute and chronic hepatitis due to other causes,
- 3) Age less than 18 years.

#### IV. OBSERVATION AND RESULTS

- 1. The typical age of presentation of Alcoholic Hepatitis is between 40 to 50 years, with the majority occurring before the age of 60 years<sup>[78]</sup>. Present study too indicates the same findings.
- 2. Lower and lower Middle socio-economic class people consume more alcohol, so alcoholic liver disease are more common in them. Most of the patients from lower socioeconomic class are nutritionally poor and that also adds to the development of alcoholic liver disease.
- 3. This study indicate that yellow sclera and urine was the most common presenting symptoms in alcoholic liver disease followed by abdominal distension, anorexia and abdominal pain.
- 4. Most patients with Alcoholic Hepatitis drinks more than 100 g/d with 150-200 g per day being common <sup>[78]</sup>. In the present study 92% of patients were heavy alcoholics i.e. more than 80gm/day. This suggest that alcoholic hepatitis mostly occurs in heavy drinkers.
- 5. Most of the patients who developed alcoholic hepatitis were long term alcoholics. Most of them were taking alcohol for more than 5 years.
- 6. This study suggests that average cost of treating an alcoholic hepatitis patient is around 614\*6=Rs 3684 per patient. This study suggest that alcoholic liver disease is huge economic burden on the health system as average stay per episode is quite long.
- 7. This study suggests that most patients having alcoholic liver disease suffered severe anaemia probably due to gastro intestinal loss. So every alcoholic patient with liver disease should be screened for gastro-intestinal bleeding.
- 8. Patients with alcoholic hepatitis mostly present with leucocytosis as a response to inflammation in liver cells. In this study half of the patients had leucocytosis, while rest of the patients had either leukopenia or normal WBC counts.
- 9. Alcoholic liver disease usually present with thrombocytopenia. Chronic alcoholic liver disease patients showed a decrease in all haematopoietic cell lines, probably associated with hypersplenism found in those patients<sup>[89]</sup>. In this study 52% of the patients had normal platelet counts while rest presented with thrombocytopenia.
- 10. Hyperbilirubinemia is an important feature of alcoholic liver disease. In this study half of the patients had serum bilirubin level less than 6 mg/dl, while rest of the patients had serum bilirubin level more than 6 md/dl.
- 11. Serum amino transferases such as alanine aminotransferase (ALT) [SGPT] and aspartate aminotransferase (AST) [SGOT] indicate the concentration of hepatic intracellular enzymes that have leaked into the circulation. These are the markers for hepatocellular injury. In this study around 60% of the patients had SGOT level up to two to four times while rest of the patients had more than four times rise in SGOT.
- 12. An SGOT/SGPT ratio greater than 2 is highly suggestive of alcoholic hepatitis and cirrhosis. In the present study SGOT/SGPT ratio was more than two in around 80% of the patients while rest of the patients had less than two.
- 13. This study suggests that there is mild elevation in alkaline phosphatase levels in alcoholic hepatitis patients. Half of the patients had serum alkaline phosphatase level up to two times while rest of the patients had serum alkaline phosphatase level more than two times.
- 14. Hypoalbuminemia is an indicator of advanced liver disease. This study suggests that severity of hypoalbuminemia didn't correlate well with complications like encephalopathy and ascites.
- 15. Present study suggests that Discriminant Factor score does not correlate with complications like hepatic encephalopathy and ascites. Only 5 patients were given steroid or pentoxyphylline, this suggests that discriminant factor is not followed in clinical practice for severity of disease and treatment purpose.
- 16. In alcoholic hepatitis change in SGOT, SGPT, serum bilirubin, prothrombin time and serum albumin didn't correlate well with amount of alcohol intake.
- 17. This study suggest that patient with Glasgow Alcoholic Hepatitis Score of more than 9 have more chance of complications like hepatic encephalopathy and ascites.

# V. CONCLUSION

This study shows that most of the alcoholic hepatitis patients were young adults and middle agepopulation, which is active and productive mass of society. High morbidity of alcoholic liver disease required frequent hospitalization adding to burden for health care system and loss of man-hours at work.

Mortality and morbidity associated with this disease is matter of serious economic loss to the nation and grief for the society. We recommended screening for alcohol abuse in all adult patients presenting to the hospital and providing counselling services to increase the awareness of ill effects of alcohol. Early detection of alcoholic liver disease can decrease both morbidity and mortality due to alcoholic liver disease.

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