



ORIGINAL RESEARCH PAPER

General Medicine

A STUDY OF CLINICAL PROFILE OF PATIENTS WITH HAEMATOLOGICAL ABNORMALITIES IN DECOMPENSATED CHRONIC LIVER DISEASE IN KANCHIPURAM

KEY WORDS: DIC , DCLD , CLD , AST , ALT

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ABSTRACT

Liver plays a major role in maintaining the haematological parameters in normal and maintain the haemostasis Any disease affecting the functions of liver will cause a breach in whole body homeostasis. Hepatocellular failure, portal hypertension and jaundice may affect the blood picture .This study highlights the importance of delivery of early management of liver damage gives good prognosis. AIM - To assess the prevalence of anaemia in patients with decompensated chronic liver disease .To find the type of anaemia in a patient with decompensated chronic liver disease .To assess the prevalence of thrombocytopenia in patients with decompensated chronic liver disease .To assess the prevalence of pancytopenia in patients with decompensated chronic liver disease. 100 Patients were screened in General medicine department with DCLD. All the patients underwent haematological investigation. SPSS 24 was used for statistical analysis Most common haematological abnormalities observed in our study was anaemia (88%) and thrombocytopenia (in 80% cases). 29% cases of anaemia's were severe and 58% of patients with thrombocytopenia had platelet count <1 lakh/cmm. Alcoholic CLDs had low, mean Hb than non-alcoholic CLDs. Most common anaemia observed was normochromic normochromic anaemia. Pancytopenia is common in alcoholic CLDs. Various haematological abnormalities like anaemia, pancytopenia, and raised Mean corpuscular volume were observed in DCLD patients This study highlights the importance of early identification of haematological disorders in DCLD gives good prognosis.

INTRODUCTION

The liver is the largest organ of the body, weighing about 1-1.5 kg.¹ The majority of cells in the liver are hepatocytes, which constitutes 2/3rd of the organ's mass. The remaining cell types are kupffer cells, stellate cells, endothelial cells and bile ductular cells.^{2,3} Liver helps in maintaining various haematological parameters. DCLD can be caused due to multiple causes like alcohol, Infections, Autoimmune diseases, Drugs, Chemical agents, Venous congestion. Chronic liver failure is usually associated with hypersplenism and diminished erythrocyte survival is frequent.⁴ Anaemia is one of the most common haematological condition seen with DCLD which is mainly caused due to heamodilution.⁵ Leukopenia and thrombocytopenia are other common haematological conditions associated with this, thrombocytopenia cause in DCLD I multifactorial like Portal hypertension with resulting hypersplenism, Anti-platelet antibodies, Decreased levels or activity of the platelet growth factor thrombopoietin,⁷ Bone marrow suppression of thrombopoiesis. Our study gives a birds view on various haematological changes seen in DCLD patients .

Need for the study:

It highlights the importance of delivery of early management of such haematological condition gives good prognosis. And also scarcity of studies on haematological abnormalities in DCLD in people from sub urban population in India .

AIMS & OBJECTIVES OF THE STUDY- To assess the prevalence of anaemia in patients with decompensated chronic liver disease. To find the type of anaemia in a patient with decompensated chronic liver disease. To assess the prevalence of thrombocytopenia in patients with decompensated chronic liver disease and assessing the prevalence of pancytopenia in patients with decompensated chronic liver disease.

MATERIALS AND METHODS: This was a cross sectional

study. After getting necessary permission, 100 patient's presented with DCLD in General medicine department of Meenakshi medical college were observed . Hematological examination including complete blood count , peripheral smear was done for all the patients .For statistical convenience people were divided into diagnostic group. Statistical analysis was done using SPSS24.

RESULTS:

Out of the 100 DCLD patients, most of them belonged to 41-50 years (34 patients) and least were seen in less than 30 years (4patients) 41(82 %). In this study out of 100 patients 86 (86%) males and 14(14 %) were females. it clearly showed predominance of male gender in DCLD. It was observed that among risk factors contributing to DCLD, alcohol consumption was found to be highest and was observed in 67 patients followed by hypertension viral infection 13 patients and cryptogenic 7 patients .

Table I - In our study nine patients with normal haemoglobin level had normochromic and normocytic blood picture. Among the 91 patients, who had anaemia, 41 patients had normochromic and normocytic anaemia, 23 patients had macrocytic anaemia, 14 patients had microcytic hypochromic picture and 14 patients had dimorphic anaemia.

Table II - Our study population had majority of patients with MCV volume in the range 80-100 (59 patients) followed by greater than 100 (23 patients) and with least less than 80 (18 patients).

Table III -

Among 100 patients in this study, Thrombocytopenia was found to be in 80 patients. Severe thrombocytopenia of <50,000 cells/mm³ was found to be in 22 patients. Pancytopenia was present in 33 patients in our study which had significant p value showing a strong correlation of alcohol and pancytopenia.

Table – 1 Peripheral Smear Among Study Population

PERIPHERAL SMEAR	NO OF PATIENTS	PERCENTAGE
NORMAL	8	8%
NORMOCHROMIC		
NORMOCYTIC	41	41%
MACROCYTIC	23	23%
MICROCYTIC		
HYPOCHROMIC	14	14%
DIMORPHIC	14	14%

Table -2 Mean Corpuscular Volume Among Study Population

MCV	NO OF PATIENTS	PERCENTAGE
< 80	18	18%
80-100	59	59%
> 100	23	23%

Table -3 Platelet Count Among Study Population

PLATELET COUNT	NO OF PATIENTS	PERCENTAGE
< 50000	22	4%
50,000 - 1 LAKH	36	23%
1-1.5 LAKH	22	34%
1.5-2 LAKH	8	29%
> 2 LAKH	12	10%

DISCUSSION:

The study population included data of the 100 patients who presented in general medicine department with DCLD. Majority of patients belonged to 41-50 years (34 patients) and least were seen in less than 30 years (4patients) 41(82 %). so higher age was seen associated more with DCLD . Among the 91 patients, who had anaemia, 41 patients had normochromic and normocytic anaemia, 23 patients had macrocytic anaemia, 14 patients had microcytic hypochromic picture and 14 patients had dimorphic anaemia. It showed anaemia as the most common haematological disorder in DCLD. This finding was similar with the study done by Anbazhagan et al⁸ Majority of patients with MCV volume in the range 80-100 (59 patients) followed by greater than 100 (23 patients) and with least less than 80 (18 patients).

Thrombocytopenia was found to be in 80 patients. Severe thrombocytopenia of <50,000 cells/mm³ was found to be in 22 patients. This study highlights the importance of early identification of haematological disorders in DCLD gives good prognosis.

Limitations:

1. Small sample size
2. Study period was very short .

CONCLUSION:

Various haematological abnormalities like anaemia, pancytopenia, and raised Mean corpuscular volume were observed in DCLD patients This study highlights the importance of early identification of haematological disorders in DCLD gives good prognosis.

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