

Groups	Group I	Group II	Group III
Diseases	Cirrhosis	Other liver disease	Hepatitis
M:F	25:25	30:20	28:22

Table1: Distribution of patients.

Table 1 shows that group I had 25 males and 25 females, group II had 30 males and 20 females and group III had 28 males and 22 females.

Parameters	Group I	Group II	Group III	P value
Increase PT	40	42	45	0.91
APTT	42	28	30	0.01

Table2: Assessment of parameters.

Table 2, graph I shows that increased prothrombin time was seen in 40 in group I, 42 in group II and 45 in group III. APTT was enhanced in 42 in group I, 28 in group II and 30 in group III. The difference was significant (P< 0.05).

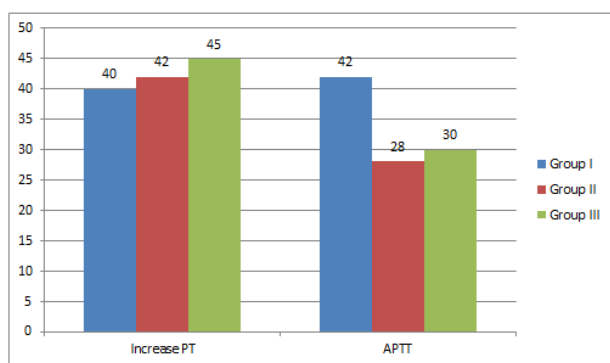


Figure1: Assessment of parameters.

DISCUSSION

The bleeding tendency accounts for high risk of morbidity and mortality in patients with liver disease undergoing diagnostic or therapeutic invasive procedures. Coagulation disorders in liver disease are widespread, complex and expensive to treat. Many mechanisms can cause the coagulation changes, but many can be attributed to cytokine activation. Sepsis further impairs hemostasis in patients with liver cirrhosis bleeding from esophageal Thrombotic events, even if rare in cirrhotic patients, can occur. In liver disease the platelet count is either normal or decreased. The liver is a source of thrombopoietin which stimulates platelet production. Mild splenomegaly may be present in cirrhosis resulting in platelet pooling. Alcohol intake inhibits the production of platelets by megakaryocytes. Folate deficiency, which may accompany cirrhosis may also cause thrombocytopenia. The present study was conducted to assess coagulation factors in various liver diseases.

In present study, group I had 25 males and 25 females, group II had 30 males and 20 females and group III had

28 males and 22 females. It was included 225 patients clinically diagnosed with liver disease who were divided into three categories: 1-cirrhosis, 2-other liver disease and 3- Hepatitis. The coagulation tests PT and APTT were performed and the results were evaluated in groups. 25 normal patients were taken as controls. Result: Out of 250 patients, 190(85%) were males and 60(24%) were females. A total of 13(6%) patients were of cirrhosis, 100 (44%) were of viral hepatitis and jaundice, and 112 (50%) were of other liver diseases and 25 normal patients (10%). Prothrombin time showed marked significant prolongation in all liver diseases. In cirrhosis: 90-100% bleeders showed elevation of Prothrombin time and non bleeders showed elevation in 50-55% cases. In viral hepatitis: 45% cases showed rise in PT. In Alcoholic liver diseases; 38.5% cases showed rise in PT. APTT is quite Significant in cirrhosis. In cirrhosis, Bleeders showed elevation of APTT in100% cases and non bleeders show 50% cases. In viral hepatitis, 25.3% rise in APTT in Alcoholic liver diseases, 25.9%cases showed rise in APTT.

We found that increased prothrombin time was seen in 40 in group I, 42 in group II and 45 in group III. APTT was enhanced in 42 in group I, 28 in group II and 30 in group III. Sale et al¹² did evaluation of the frequency of coagulation abnormalities in patients with cirrhosis of liver. 82 patients presenting with cirrhosis of liver were selected and were evaluated for coagulation profile. Out of 82, fifty (60.9%) were males and thirty two (39.1%) were females. According to Child’s Pughs classification, 37(45.12%) cirrhotic patients were in class A, 13 (15.85%) in class B and 32 (39.02%) in class C. The PT was prolonged (mean+SD=20.67 ± 4.12 sec) in 44 (53.65%) patients, while38 (46.34%) patients had normal PT which was less than 14 seconds (mean +SD=12.13±1.01sec). Activated partial thromboplastin time was prolonged in47 (57.31%) patients, while 35 (42.68%) patients had normal APTT which was less than 40 seconds (mean + SD=33.05 ± 3.06 sec). PT and APTT were significantly raised in cirrhotic patients. Approximately 39% CLD cases had reduced platelet count. Relative risk of GI bleeding with aberrant clotting tests in CLD cases were weakly positive for PT (RR=1.02; 95%CI, 0.49-2.10), negative for aPTT (RR=0.83; 95% CI,

0.47-1.45), strongly positive for decreased platelet counts.

CONCLUSION

Authors found that prolongation of PT and APTT in patients with liver cirrhosis indicates damage to the liver parenchyma.

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