

# STUDY OF COAGULATION PROFILE IN LIVER DISEASES

by

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## **ABSTRACT**

**BACKGROUND AND OBJECTIVES:** Liver diseases accounts for 2 million deaths worldwide with a million morbid cases due to complications per year. Coagulation tests also have an important role in liver diseases. Sonoclot device measures all the phases of coagulation. This study was taken up to study coagulation tests and Sonoclot variables and to compare the values.

**METHODS:** This was a year study, 56 cases with deranged LFT's were considered as subjects along with 10 healthy controls from voluntary donors. 4 conventional coagulation tests and Sonoclot analysis were done. These values were expressed in Mean  $\pm$  SD values in all the 3 Child- Pugh classes. Significance was established using "p value". Pearson's correlation was followed, R value and p value were obtained.

**RESULTS:** Conventional coagulation tests (PT, APTT, INR) showed worsening of values with increasing Child- Pugh score. PC didn't show decreasing trend with controls and subjects but p value was obtained to be significant. Among the Sonoclot values TP, PA and R2 peak character showed significant values(p <0.05).

Conventional coagulation tests and Sonoclot values were correlated, subjects had significant values(P <0.05) between PC and PF, APTT and CR, PC and TP. PA had significant correlation with PC, PT, APTT and INR. In controls, significant values were between APTT and SONACT, PC and PF, CR had significant correlation with PT and INR.

**CONCLUSION:** Liver diseases comprise spectrum of diseases from acute hepatitis to HCC, and all present with different laboratory test values. Child-Pugh Score like MELD Score is used to predict the prognosis. All the conventionally used tests

showed reliability. Among the Sonoclot values though difference was not as significant as the earlier mentioned coagulation tests but few values (TP, PA and R2 peak character) showed significant difference. Sonoclot can be used as adjunct with conventional tests.

**Key words:** Blood Coagulation tests; Liver Function Tests; Prognosis.