

# DIAGNOSTIC IMPORTANCE OF ALPHA 2 MACROGLOBULIN IN LIVER DISEASES

P. Kar, B. N. Tandon and B. M. Gandhi.

*Department of Gastroenterology, All India Institute of Medical Sciences,  
Ansari Nagar, New Delhi-110029. India.*

The alpha 2 macroglobulin is a glycoprotein present in the plasma. Its biological function is still poorly understood. Its utility for clinical services is being evaluated. This study was undertaken with the following objectives:-

1. to evaluate the value of alpha 2 macroglobulin as an index of active liver cell injury in acute and chronic liver disease;
2. to find out its diagnostic significance in amoebic liver abscess, hepatoma and obstructive jaundice.

## **Methods and Material:**

The alpha 2 macroglobulin was estimated by single radial immunodiffusion technique of Mancini (1964) in 118 patients of different diseases Acute viral hepatitis (22), subacute hepatic failure (14), fulminant hepatitis (29), cirrhosis with activity (6) cirrhosis without activity (7) chronic active hepatitis (4), obstructive jaundice (6), amoebic liver abscess (22), hepatoma (9)

## **Results:**

1. significant elevation of this parameter was observed in patients of acute viral hepatitis (P<0.01), hepatoma (P<0.05) and surgical obstructive jaundice (P<0.01) as compared to the controls.
2. significant difference in the levels of alpha 2 macroglobulin was also observed however cases of acute viral hepatitis and fulminant hepatitis (P<0.01,) between acute viral hepatitis and subacute hepatic failure (P<0.05) and between subacute hepatic failure and hepatoma (P<0.05).

3. The follow up of the patients of fulminant hepatitis who recovered from encephalopathy indicated a significant rise in the alpha 2 macroglobulin levels.

#### Conclusions:

1. serial estimation of alpha 2 macroglobulin in the course of acute viral hepatitis may predict particularly occurrence of fulminant hepatitis and subacute hepatic failure.
2. its estimation in the course of fulminant hepatitis may be helpful as in prognostic index.
3. in specific clinical situations its estimation may be helpful to distinguish patients of subacute hepatic failure from cases of hepatoma.