Thesis Title: "Role of Hepatitis E Virus infection in acute viral and fulminant hepatitis during pregnancy: Correlation with HEV viremia and HEV IgG titre"

Submitted by : Nargis Begum

Supervisor:	**Co-Supervisors:**	
Dr. Syed Akhtar Husain	**Dr. P. Kar**	**Dr. Ashok Kumar**
Professor	Professor	Professor
Department of Biosciences,	Department of Medicine,	Department of Obs. & Gynae,
Jamia Millia Islamia,	MAMedical College,	MAMedical College,
New Delhi-110025	New Delhi-110002	New Delhi-110002

ABSTRACT:

Introduction: Hepatitis E Virus (HEV) is usually self-limiting but leads to acute and sub-acute liver failure. It is the most common cause of viral hepatitis during pregnancy in Indian women particularly during the second and third trimesters and shows mortality rate as high as 15%-20%.

Objectives: (i) To study the prevalence of HEV as an etiological agent in acute viral hepatitis and fulminant hepatitis during pregnancy. (ii) To study the duration of viremia of hepatitis E virus infection in pregnant and non-pregnant women with acute viral and fulminant hepatitis. (iii) To study the seroconversion of HEV IgM to HEV IgG in pregnant and non-pregnant women with acute viral and fulminant hepatitis. (iv) To study the seroprevalence of IgG anti-HEV in healthy pregnant women. (v) To determine the HEV infection in placental tissue, if detected, and to correlate the viral titers with the severity of this disease among pregnant women.

Results & Conclusion: In the present study, we found HEV as the sole etiological agent in 33.33% pregnant patient with AVH, 29.09% non-pregnant patient with AVH, 77.78% pregnant patient with FHF and 51.11% non-pregnant patient with FHF. The duration of HEV viremia in AVH & FHF cases was longer in pregnant patients than non-pregnant patients. The IgM antibody to HEV did not showed any significant difference between various groups, but the presence of HEV IgG was significantly lower in pregnant group as compared to the non-pregnant group ($P<0.0001$) on 0^{th}, 7^{th}, 15^{th} & 30^{th} day of follow-up respectively. The present study on healthy asymptomatic primigravidae women showed the overall prevalence of anti-HEV IgG to be 33.67%. In present study, we identified an extrahepatic / nonserological, detection site of HEV in the placental tissue. The viral load of FHF was significantly higher than patients with AVH ($P=0.0001$) in both serum and placenta.