

Summary

The hepatitis C virus (HCV) infection is an emerging disease in South East Asian region. Available studies have suggest, that Sri Lanka has a low prevalence rate of HCV infection in general population and as well as in high risk groups.

The prevalence of hepatitis C virus infection was tested in a multi-transfused group of patients over a period of three months. A study group of 250 thalassaemics (209 samples from Teaching Hospital, Kurunegala, 41 samples from Lady Ridgeway Hospital Colombo) and 56 haemodialysis patients (University unit, NHSL) were drawn from three hospitals.

A sample of blood was collected from all patients and tested for hepatitis C virus antibody with a second generation, particle agglutination (Serodia, Fugirebio, Japan) and a third generation Enzyme Linked Immuno Sorbent Assay (Murex anti HCV Version III).

Samples that were positive were confirmed by a third generation recombinant immunoblot assay (RIBA III). Sera were also tested for hepatitis B surface antigen by reverse passive haemagglutination (Serodia, Fugirebio, Japan).

Prevalence of anti- HCV antibodies among thalassaemia patients was 5.2% and in haemodialysis patients 1.8% in the tested study populations.

The prevalence of anti- HCV was significantly higher with increasing number of blood transfusions in this study ($P < 0.0002$). The patients who have undergone splenectomy showed a significantly higher number of anti- HCV positivity ($P < 0.02$). Incidentally the hepatitis B surface antigen was found in 26 patients.

In this study the calculated risk for Hepatitis C virus per unit of blood transfusion was 1.1%. In conclusion Sri Lankan thalassaemic children were at high risk of acquiring HCV infection. The determination of ALT level has not been shown to be a useful marker in the present study in the diagnosis of HCV infection. The use of a second generation assay such as particle agglutination test showed acceptable sensitivity as a screening test. It is recommended that blood should be screened for HCV before transfusion at least in those of thalassaemic patients to reduce the risk of HCV transmission.