

(١٠)

## **Seroprevalence of parvovirus B<sup>١٩</sup> infection in patients with beta thalassemia major in Fayoum University Hospital**

### **Abstract**

The aim of the study was to detect the seroprevalence of parvovirus B<sup>١٩</sup> infection in children with transfusion dependent beta-thalassemia major through the detection of its specific IgM and IgG in their sera by Enzyme-linked Immunosorbent Assay (ELISA) in the Pediatric Department of Fayoum University Hospital. Materials and methods: A cross sectional descriptive study was carried out from July to September ٢٠١٢, in the Pediatric Department of Fayoum University Hospital in Egypt. A total of fifty-five children with beta-thalassemia major aged from ٢ to ١٦ years were enrolled in the study. All patients were subjected to history taking, examination and investigations including; Complete blood count, serum creatinine, blood urea, hepatitis B surface antigen (HBsAg), anti hepatitis C virus antibody (anti HCV), reticulocytic count, anti B<sup>١٩</sup> IgM and IgG.

Results: Anti-B<sup>١٩</sup> IgM antibodies (recent infection) were detected in ١٤.٥% (٨ patients), while anti B<sup>١٩</sup> IgG antibodies (prior infection) were detected in ١٨.٢% (١٠ patients) of transfusion dependent thalassemic patients. There was a significant statistical correlation between the history of other siblings with beta thalassemia major, the hepatitis C virus and hepatitis B virus infection regarding absent, prior and recent infection. Conclusion: Parvovirus B<sup>١٩</sup> infection is detected in high rates among children with beta thalassemia major. Measures to avoid iatrogenic and nosocomial transmission have to be implemented including screening of donated blood for B<sup>١٩</sup> especially blood given to patients with hematological disorders.