The Prevalence of Cytomegalovirus among Eligible Blood Donors in Keffi, Nigeria

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Abstract

Cytomegalovirus also called human herpesvirus type 5 (HHV 5) is known to be a significant cause of morbidity and mortality following blood transfusion. In immunocompetent individuals, primary CMV infection is usually asymptomatic, the immuno-suppressed population for which CMV seronegative blood products are required is increasing due to advances in medical care especially to premature infants, AIDS patients, increasing use of transplantation procedures and immunosuppressed cancer therapies. The aim of this study was to determine the prevalence of cytomegalovirus infection among eligible blood donors in Keffi, Nigeria. Blood samples were collected from 208 consenting participants in the Haematology Unit of Federal Medical Centre, Keffi. The sera were evaluated for CMV IgG antibody using an ELISA kit (Cortez Diagnostic, Inc. USA). The overall prevalence for CMV IgG was 74%. The prevalence of CMV IgG antibody based on sex was 73.9% in the male and 74.2% in the female population. There was no statistically significant association between gender and CMV IgG prevalence (p> 0.05). Seroprevalence was found to increase with age from 52.5% among those aged < 20 years to 81.8% among those aged 30-39 years. Neither occupation nor history of blood transfusion was significantly associated with CMV IgG prevalence among the participants. Of those that have had a blood transfusion 70.6% were positive to the virus while among those that have never had a transfusion the prevalence of the virus was 74.3%. This study reported a high CMV infection prevalence in this study area. This therefore underscores the need to include CMV screening before blood transfusion and the importance of using strategies such as leukoreduction before any transfusion in this area. Also the medical records of seronegative eligible donors should be kept for emergency contact when patients who are at high risk of developing severe CMV infection are in dire need of transfusion. Proactive strategies of educating people on prevention and control measures should be put in place.

Presenter Information

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