POST-DONATION HIV INFECTION AMONGST BLOOD DONORS AT THE YAOUNDE UNIVERSITY TEACHING HOSPITAL, CAMEROON

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Abstract: HIV/AIDS remains an issue of major public health concern worldwide, over four decades since its discovery, with about 35 million people living with it, 71% of whom are in Sub-Saharan Africa (SSA). Blood transfusion is the most efficient (95-100%) route of its transmission. Despite stringent screening methods that may be in place, there is always a residual risk for HIV transmission due to the eclipse/window period. This risk is increased by the predominance of family/replacement donors in our setting (about 70-80%), reported by the World Health Organization to carry higher risks of infectious transmission, compared to volunteer non-remunerated donors. Thus, this study was carried out to investigate the phenomenon of residual risk for HIV infection from blood donations collected during the window/eclipse periods at the Yaoundé University Teaching Hospital (YUTH). A cross-sectional study was conducted among consenting HIV-negative blood donors in the Haematology and Transfusion Service of the YUTH who reported to collect the results of the tests carried out on their blood at the time of blood donation. A 5 ml blood sample was collected from these for post-donation HIV screening. Rapid tests and enzyme linked immune-sorbent assay (ELISA) techniques were used for HIV antibody detection. Appropriate statistical methods were used to analyze the findings. There were 90 consenting donors that met the inclusion criteria and constituted the study population. The mean time lapse between blood donation and the sample collection was 16.87±4.56 days [range 8-32]. Out of these 90 participants 3(3.33%) were confirmed HIV positive on the second collection. The most frequent risk factors for HIV amongst these blood donors between blood donation and sample collection were sexual relationship 64 (71.11%), multiple sex partners 13(20.31%), the lack of condom use 27 (42.19%), drunkenness 15 (16.67%) as well as pricks by sharp objects 12 (13.33%). No association was found between any of the risk factors considered in the study and the HIV status of donors (p=0.05). These findings suggest that the potential for HIV transmission through blood transfusion remains very high, and that some blood donors may be within the eclipse/window periods at the time of blood donation. There is persistent need for stringent criteria for the medical selection of donors and for more efficient screening techniques in all blood transfusion services, especially of SSA.

Keywords: HIV infection, blood donors, post-donation HIV