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Extent of sickle cell carriers among patients attending Ebenezer Limited Clinical Laboratories, Uganda

Ronald Ayikobua
Uganda Blood Transfusion Service, Uganda

It is important to identify people who are carriers of abnormal hemoglobin so as to be aware of the risk of having 25% of children with sickle cell disease. There is a long-standing controversy in the literature as to whether sickle-cell trait (SCT) should be viewed as a benign carrier state or as an intermediate disease phenotype due to the recently documented high infant mortality rate. This study aimed at determining the extent of sickle cell carriers in patients attending the laboratory. A cross sectional study was conducted at Ebenezer Limited Clinical Laboratories, Uganda. Three hundred forty three (343) blood samples were collected and analyzed using an automated electrophoresis machines. Of the 343 respondents, 94 were carriers (AS), 17 were sicklers (SS) and 232 were found to be normal (AA)l. The prevalence of sickle cell trait was 27.4% (P>0.05). Higher prevalence was in Central region (69.1%) and lower in Eastern region (9%); higher for those with knowledge about the trait (33%) and prior testing after marriage (38%). Sickle cell trait in relation to gender, age, regions and knowledge awareness of the sickle cell disease among the respondents showed P>0.05. Despite the prevalence of sickle cell trait disorder, sickle cell trait is important but largely neglected risk to the population survival in most African countries and therefore action is needed on at least two fronts. First and most important, public health programs including newborn screening and health education are urgently needed on the model of pilot programs already some being conducted in Uganda.

ayikobua.ronald@yahoo.com