y in adult Kenyan patients with sickle cell disease

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Abstract:

The sickling of erythrocytes increases viscosity and reduces the rate of both local circulation and arterio-venous transit time. This causes occlusion of capillaries by "microthrombin". The occlusion is implicated in the multiplicity of vaso-occlusive complications of both acute and chronic nature. Whether or not anticoagulant therapy is warranted in these states has remained debatable. There is no clear evidence that there is an inherent coagulation disorder. Earlier studies indicate that fibrinolysis is normal in steady state sickle cell disease but decreased during sickle cell crisis. We studied fibrinolytic activity or euglobulin clot lysis time (ECLT) in 47 subjects, twenty six of them with homozygous sickle cell (HbSS) disease and 21 healthy controls of whom eighteen had the HbAA and three had the HbAS genotypes. The sex distribution was sixteen males to ten females for the HbSS and 13 males to eight females for the controls. Age range was 17-35 years for the HbSS and 25-35 for the controls. Means for basic haematologic parameters including platelets were also performed. Mean clot lysis time (MCLT) was 3.75 hours for the HbSS and 1.91 hours for the controls (normal range 1 1/2-4 hours). The difference in ECLT between patients and controls was statistically significant ($p < 0.001$). Fifty three and a half per cent of the HbSS fell above the upper limit of normal MCLT. All the 21 controls fell within normal range. There were also statistically higher values ($p < 0.001$) in HbSS as compared to the controls with regard to MCV, WBC count, and platelet count.