Abstract:

PURPOSE: To determine the magnitude and pattern of ocular manifestations in sickle cell disease at Korle-bu Hospital, Accra, Ghana. METHODS: Hospital-based cross-sectional study including all patients with sickle cell disease reporting for routine follow-up at the Sickle Cell Clinic at Korle-bu Hospital, Accra, Ghana. RESULTS: A total of 201 patients with sickle cell disease (67 male and 134 female) were enrolled, comprising 114 subjects with genotype HbSS, aged 6-58 years, mean 19.26 (SD 11.70), and 87 with genotype HbSC, aged 6-65 years, mean 31.4 (SD 16.76). Visual impairment was found in 5.6% of eyes examined. Causes were cataract, proliferative sickle retinopathy (PSR), optic atrophy, phthisis bulbi, and central retinal artery occlusion. Common anterior segment signs of sickle cell disease, which were more common in HbSC patients, were tortuous corkscrew conjunctival vessels, iris atrophy, and cataract. Eyes with iris atrophy or depigmentation were 1.8 times more at risk of PSR than eyes without. Overall, PSR was found in 12.9% of subjects examined (3.5% of HbSS, 25.3% of HbSC; 15.9% of males and 11.2% of females). The prevalence of proliferative sickle retinopathy increased with age and increased systemic severity of sickle cell disease; sex did not have an influence. CONCLUSIONS: There is a high prevalence of ocular morbidity in sickle cell disease patients at Korle-bu Hospital. Prevalence increased with age, systemic severity of sickle cell disease, and HbSC genotype.