n type 2 diabetic patients.

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Abstract:

To determine the prevalence and pattern of refractive errors among African type 2 diabetes mellitus patients and establish the relationship between baseline refractive status and degree of glycaemic control. A hospital based cross sectional study. Diabetic medical and eye clinics at Kenyatta National Hospital (KNH). Ninety six type 2 diabetes mellitus patients. Ninety six patients aged 28 to 76 years were examined. The male to female ratio was 1:1.5 and about half of the patients (52.1%) had good glycaemic control. The prevalence of myopia was 39.5% and that of hypermetropia was 19.0%. Twenty two percent of the study patients had mild diabetic retinopathy (DR). Of the eyes with DR, 20% (15/75) were myopic, 19.4% (7/36) were hypermetropic and 26.6% (21/79) were emmetropic. There was no statistically significant correlation between baseline refractive status with DR (p = 0.358), or HBA1C (glycosylated haemoglobin) (rho = 0.130, p-value = 0.249 among myopes) or FBS (fasting blood sugar) (rho = 0.089, p-value = 0.438 among myopes and rho = 0.158, p-value = 0.350 among hyperopes). However, there was a statistically significant correlation between baseline hypermetropic refractive status and HBA1C (rho = 0.401, p-value = 0.014). Refractive errors were seen in 58.5% of the patients with myopia being the most common type (39.5%) followed by hypermetropia 19.0%. There was no statistically significant relationship between baseline refractive status and indicators of glycaemic control except for hypermetropic refractive status and HBA1C. According to the results of this study, it is not mandatory to ask for HBA1C or FBS results before issuing spectacle prescription to adult patients with type 2 diabetes mellitus who are already on treatment. However, there is need to emphasise the need for good glycaemic control to minimise the other ocular complications. A similar study should be done on young people with type I diabetes mellitus.