The Effect of Hydroxychloroquine Treatment on Blood Sugar Level, Serum Lipid Profile and the Retina in Systemic Lupus Erythematosus Patients

The aim of this study was to evaluate the effect of hydroxychloroquine (HCQ) on blood sugar level, lipid profile and retina in newly diagnosed systemic lupus erythromatosus (SLE) patients. Fifty newly diagnosed SLE patients were collected from Immunology and Rheumatology outpatient clinics in Beni Suef University hospital. All patient's questionnaire included name, age, sex, smoking status, the date of the diagnosis, drugs taken during the follow up period and present history of other diseases. Only HCQ was prescribed to the patients within one year follow-up. They were with a mean (SD, range) age 30 (7.07, 25, 35) years old. Their total lipid profile which included total cholesterol (TC), triglyceride (TG), low density lipoprotein (LDL), high density lipoprotein (HDL) and fasting blood sugar (FBG) and postprandial blood glucose levels (PPBG) were analyzed in MASTER LAB in Beni suef before and after 6 months from the using of HCQ as well as our patients were converted to Ophthalmology Department in Beni Suef University hospital before and at the end of six months of HCQ therapy to undergo to complete eye examinations. The mean (SD) of TC, TG, LDL, FBG and PPBG were significantly decreased after HCQ than before using it while HDL was increased at $p<0.05$. There was no observed effect on retina. HCQ has beneficial effects in protection against thrombosis, hyperglycemia and the absence of retina toxicity in the short term of the use.

Keywords: Systemic lupus erythematosus, hydroxychloroquine, blood sugar, lipid profile, retina