

The aim of this study is to determine serum IL-33 levels and atherogenic index of plasma (AIP). Forty patients with moderate activity of rheumatoid arthritis (RA) and forty healthy individuals as control group were enrolled in this study, age (25-45) years. Disease activity was assessed in patients by erythrocyte sedimentation rate (ESR), C-reactive protein (CRP) and rheumatoid factor (RF). Also lipid profile (cholesterol TC, triglyceride TG, low density lipoprotein LDL-C, very low density lipoprotein VLDL and high density lipoprotein HDL-C), AIP, and IL-33 were determined in all subjects. The results revealed a significant increase in ESR, CRP and RF, TG, VLDL, AIP and IL-33, while a significant decrease in HDL concentration in patients group compared to control group was found. No significant increase in TC and LDL-C levels were noticed between patients and control groups. Positive correlation was found between CRP and IL-33 in patients group. The conclusion could be drawn from this study that the patients presented with cardiovascular disease as concomitant of RA, which is predicted by elevated AIP value that can be calculated easily. IL-33 used as a novel parameter for assessing disease activity in patients with RA more than CRP dose alone.