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**A COMPARATIVE STUDY ON DIFFERENT FRACTION OF LIPID AND DAS28 SCORE IN PATIENTS OF EARLY ARTHRITIS**

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**ABSTRACT**

Background: Dyslipidaemia is a major Cardiovascular disease (CVD) risk factor in the general population. Evidence suggests that lipid metabolism is altered in rheumatoid arthritis due to inflammation. The aim of this study is to find out the prevalence of different fraction of lipid abnormality in early rheumatoid arthritis in a tertiary care centre so as to take necessary steps for intervention and early detection, and thereby reducing the chance of cardiovascular morbidity and mortality.

Methods: Fifty patients who met the 2010 American College of Rheumatology/ European league Against Rheumatism(ACR/ EULAR) criteria for early rheumatoid arthritis, with disease duration of less than 1 year and no prior treatment were included in the study. Thirty healthy volunteers were included as control.

Results: The mean Disease Activity Score-28 (DAS-28) at disease onset was 5.8 ± 0.9. Early rheumatoid arthritis (ERA) patients exhibited higher serum levels of total cholesterol (TC) and low density lipoprotein cholesterol (LDL-C) levels compared to controls. The atherogenic indices: TC/HDL-C as well as LDLC/HDL-C were significantly higher in ERA patients compared to controls. Difference of mean LDL vs. DAS 28 (p=0.0073) and mean ESR vs. DAS 28 (p=0.0499) were statistically significant in this study.

Conclusion: Early rheumatoid arthritis patients are characterized by an atherogenic lipid profile, which is major cardiovascular risk factor.

Keywords: Rheumatoid arthritis, Low density lipoprotein cholesterol, Total Cholesterol/High density lipoprotein cholesterol, Cardiovascular risk, Disease activity score-28 (DAS 28).