

## A COMPARATIVE STUDY OF LIPID PROFILE AND BODY MASS INDEX IN CORONARY HEART DISEASE PATIENTS AND HEALTHY SMOKERS SUDANESE SUBJECTS

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### ABSTRACT

The present study was carried out at the department of biotechnology-Omdurman Islamic University with cooperation with department of Clinical chemistry- Sudan Centre for Heart Diseases as a comparative study of Lipid Profile and Body Mass Index (BMI) in Coronary Heart Disease (CHD) Patients (N=50) and healthy smokers (N=50). From the results, when compared CHD Patients and smokers it found that, there is no significant difference between the two groups in lipid profile levels (Triglycerides (TG) (141.98±9 28.77 mg/dl) , (153.34±53.27 mg/dl) respectively and High Density lipoprotein (HDL) (46.00±6.37 mg/dl) , (47.98±17.73 mg/dl) respectively, Cholesterol (TC) (242.14±51.7 mg/dl) , (237.26±44.37 mg/dl) , Low Density lipoprotein (LDL) (168.66±56.64 mg/dl) , (157.82±43.8 mg/dl) respectively) ( P.value >0.05) , but there was decrease in lipid profile levels in smokers when compared to CHD patients . On the other hand, the BMI in CHD patients was lower than Smokers ,with a significant difference between the two groups (24.9±2.4 kg/m<sup>2</sup>) and (26.4±2.96 kg/m<sup>2</sup>) respectively)(p.value <0.05).

The results showed that, cigarettes smoking influences the normal Lipid Profile levels and BMI , hence causing dyslipidemia that may lead to atherosclerosis and increase the risk of CHD in smokers.

**Keywords:** Lipid Profile, Body Mass Index, Coronary Heart Disease, Smokers.