

Dedication

*To my parents, husband, sisters , brothers ,
sweaty daughters , and sun .*

I dedicate this work

Montaha

Acknowledgements

My first thankful is to Allah, and then to my supervisor Dr . Badr Eldien H.Elabid for his precious advice and guidance throughout this study . Thanks and regards were extended to the staff of the clinical chemistry department , Sudan university of scince and technology ,for their continuous support and encouragement . I affirm my thanks to ustas Mubarak Hassan for helping in statistical analysis

Abstract

A cross sectional study conducted during the period from November 2009 to November 2010 , Compared the serum levels of total cholesterol , triglycerides ,HDL-Cholesterol and LDL-Cholesterol of 100 apparently healthy adult Sudanese (50 males and 50 females). The weight (in Kg) and the height(in meters) where measured and the body mass index was calculated for each participant .

All participant were from Khartoum state . The serum levels of total cholesterol , triglycerides ,HDL-C and LDL-C were measured using a spectrophotometer from Biosystem company .

The data was analyzed and the results showed that there is different in serum lipid profile in male and female .

The means of the serum levels of total cholesterol , triglycerides and LDL-cholesterol were significantly increased in the male group when compared to the female group (p values < 0.05) , while the mean of the serum levels of HDL- cholesterol was insignificantly raised in the female group when compared to the male group (p > 0.05) .

There are weak Correlations between the Body Mass Index (BMI) and the serum level of total cholesterol , triglycerides , and LDL-C, but there is no correlation between the BMI and HDL-C From this study , it is concluded that , in healthy adult Sudanese , men have significantly higher levels of serum total cholesterol , triglyceride and LDL-c than women , and women have slightly insignificantly higher HDL-c than men . The BMI has weak positive correlations with the serum levels of total cholesterol , triglycerides and LDL-C and has no correlation with the serum levels of HDL-C .

مستخلص الدراسة

أجريت هذه الدراسة المقطعية خلال الفترة من نوفمبر ٢٠٠٩ حتى نوفمبر ٢٠١٠ حيث تمت مقارنة مستويات ثلاثي الجليسرايد والكوليسترون الكلى والكوليسترون عالى الكثافة والكوليسترون منخفض الكثافة فى مصل الدم عند ١٠٠ من السودانيين البالغين الاصحاء (٥٠ رجلا و ٥٠ امراة) .

تم أخذ طول وزن كل شخص شارك فى هذه الدراسة ثم تم تحديد معامل كتلة الجسم لكل مشارك .

اظهرت الدراسة ان هناك ارتفاع ملحوظ ذو دلالة معنوية فى المستوى الوسطى للكوليسترون الكلى وثلاثي الجليسرايد والكوليسترون ذو الكثافة المنخفضة عند الرجال مقارنة بالنساء وان هناك ارتفاع لكنه غير ذو دلالة معنوية فى مستوى الكوليسترون ذو الكثافة العالية عند النساء مقارنة بالرجال .

كما اظهرت الدراسة ان هناك ارتباط موجب ضعيف بين معامل كتلة الجسم ومستوى الكوليسترون الكلى وثلاثي الجليسرايد والكوليسترون ذو الكثافة المنخفضة وانه لا يوجد ارتباط بين معامل كتلة الجسم والكوليسترون ذو الكثافة المنخفضة فى مصل الدم .

من هذه الدراسة نخلص الى ان هنالك زيادة فى نسبة الكوليسترون الكلى وثلاثي الجليسرايد والكوليسترون ذو الكثافة المنخفضة فى مصل الدم عند الرجال مقارنة بالنساء أما متوسط الكوليسترون عالى الكثافة فانه يزيد فى مصل الدم عند النساء مقارنة بالرجال ولكن هذه الزيادة ليست ذات دلالة معنوية اما معامل كتلة الجسم [I]يرتبط ارتباطا موجباً ضعيفاً مع الكوليسترون الكلى وثلاثي الجليسرايد والكوليسترون منخفض الكثافة ولا يوجد ارتباط بين معامل كتلة الجسم والكوليسترون ذو الكثافة العالية .

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Abbreviations

BMI	Body Mass Index
CHD	Coronary Heart Disease
FH	Familial Hypercholesterolemia
HDL-C	High Density Lipoprotein Cholesterol
IDL-C	Intermediate Density Lipoprotein Cholesterol
LDL-C	Low Density Lipoprotein Cholesterol
LPL	Lipoprotein Lipase
VLDL	Very Low Density Lipoprotein Cholesterol

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