

بسم الله الرحمن الرحيم

Sudan University of Science and Technology

College of Graduate Studies

**Assessment of Serum Lipid Profile in Sudanese Patients
with Heart Diseases**

تقويم مستويات مجموعة الدهون في مصل الدم عند السودانين المصابين
بأمراض القلب

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بسم الله الرحمن الرحيم

(وما اوتيتهم من العلم الا قليلا)

صدق الله العظيم

سورة الإسراء الآية 85

Dedication

To ...

My dear father and mother.

Who gave me light.

To..

my teachers

To..

my sisters,my brothers and all friends

To..

Heart disease patients.

Nihad Mohammed Salih

Acknowledgements

All and first thanks to the almighty allah .

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Also Iam grateful to all people from whom samples were taken .

Abstract

This study done to determine serum lipids profile (total cholesterol, triglyceride, LDL-c and HDL-c) in Sudanese patient with heart diseases in comparison to apperantly health volunteers .

The serum levels of lipid profile were measured in (60) patient with heart disease and (40) healthy volunteers in period from march to july by using Mindray chemistry analyzer and commercial kits from Mindary company. The result of this study showed the mean of the serum levels of total cholesterol, triglyceride, LDL –c and body mass index of the test group were significantly increased when compared to control group ($p = 0.000$), and the mean of the serum levels of HDL-c of the test group were significantly decreased when compared to control group ($p = 0.000$); also study showed strong positive correlation between the weight with serum total cholesterol and serum triglyceride of the test group ($p = 0.036$, $p = 0.000$).And found strong negative correlation between the weight and HDL-c in test group ($p = 0.004$).

Study conducted that there are significantly increase in serum levels of total cholesterol,serum triglyceride and serum LDL- c, and significant decrease in HDL- c in heart disease patients .

المستخلص

أجريت هذه الدراسة لتحديد مستوى الدهون عند السودانيين المصابين بمرض القلب مقارنة بمجموعه من الاصحاء غير المصابين . تم قياس نسبة دهون الدم لدى 60 مريض مصاب بامراض القلب و40 من الاصحاء غير المصابين باستخدام المحلل الكيميائي مندري .

نتيجة هذه الدراسة اظهرت ارتفاع ملحوظ ذو دلالة احصائية فى متوسط مستوى الكلسترول والدهون الثلاثية والبروتين الدهنى ذو الكثافة المنخفضة ودليل كتلة الجسم في مجموعة الاختبار مقارنة بالمجموعه الضابطه حيث كان الاحتمال الاحصائي =0.000 , وكان متوسط معدل البروتين الدهنى ذو الكثافة المرتفعة منخفض انخفاض ملحوظ ذو دلالة احصائية مقارنة بمجموعة الاختبار حيث كان الاحتمال الاحصائي = 0.000 .

وايضا اظهرت الدراسة وجود ارتباط موجب ذو دلالة احصائية بين الوزن ومستوى الكلسترول الكلي ومستوى الدهون الثلاثية بالنسبة لمجموعة الاختبار حيث كان الاحتمال الاحصائي =0.036 و(0.000) .

بينما كان هناك ارتباط سالبا ذو دلالة احصائية بين الوزن والبروتين الدهنى ذو الكثافة المرتفعة حيث كان الاحتمال الحصائي =0.004 .

هذه الدراسة تخلص الى أن مستوى الكلسترول الكلى والدهون الثلاثية والبروتين الدهنى ذو الكثافة المنخفضة يزيد عند مرضى القلب بينما تنخفض نسبة البروتين الدهنى ذو الكثافة المرتفعة عند مرضى القلب .

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Abbreviations

ACS	: Acute Coronary Syndrome
ANP	: Atrial Natriuretic Peptide hormone .
BMI	: Body Mass Index .
BNP	: B-type Natriuretic Peptide hormone .
CAD	: Coronary Artery Disease
CHD	: Coronary Heart Disease .
CHE	: Cholesterol Esterase .
CHF	: Congestive Heart Failure .
CHO	: Cholesterol Oxidase .
CVD	: CardioVascular Disease
DM	: Diabetes Mellitus
GK	: GlyceroKinase .
GPO	: Glycerol-3-Phosphate-Oxidase .
HDL-c	: High Density Lipoprotein cholesterol.
LDL-c	: Low Density Lipoprotein cholesterol.
MI	: Myocardial Infarction .
POD	: Peroxidase .
VLDL	: Very low Density Lipoprotein.

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Assessment of Serum Lipid Profile in Sudanese Patients with Heart Diseases

Questionnaire

Date () no ()

General information :

Full name:.....

Age :.....

Sex : male() female()

Hight :.....

Weight :.....

Clinical information :

Type of heart diseases

:.....

Smoking status : yes () no ()

Hypertention : yes () no ()

Diabetes mellitus : : yes () no ()

Renal diseases : : yes () no ()

Blood serum (mg \dL):

Cholesterol :.....

Triglyceride :.....

High density lipoprotein (HDL):.....

low density lipoprotein (LDL):.....