

بسم الله الرحمن الرحيم
Sudan University of Science & Technology
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**Assessment of the Serum Levels of Cardiac Troponin I in Patients with
Acute Myocardial Infarction in Khartoum State**

تقويم مستوى تروبونين القلب من النوع I عند المرضى الذين يعانون من الذبحة الصدرية
فى ولاية الخرطوم

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بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

قال الله تعالى :

الَّذِينَ آمَنُوا وَتَطْمَئِنُّ قُلُوبُهُمْ بِذِكْرِ اللّٰهِ أَلَا بِذِكْرِ اللّٰهِ تَطْمَئِنُّ الْقُلُوبُ

صدق الله العظيم

سورة الرعد الآية 28

Dedication

To my father, to my

***Lovely mother for Her Care, patience and
encouragement, to my brothers and sisters***

To my colleagues and friends

To all who have lent me a hand

to make the accomplishment

of the work possible

I dedicate this work.

ALI

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Thanks are first and last to (ALLAH) who enabled me to conduct this study by the grace of him and give me patience

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It is a pleasure to acknowledge the volunteers who were enrolled in this study ,without them this work would not have been done

Our appreciation to our teachers' staff and Sudan University, College of Medical Laboratories and Department of Clinical chemistry that did us more favors

Abstract

Across –section study conducted during the period from April to jolly 2012 to determine and to evaluate the serum level of cardiac troponinI (CTnI) in Sudanese with acute myocardial infarction

Thirty Sudanese with acute myocardial infarction were selected as the test group from Sudan Center for Heart and Elribat University Hospital in Khartoum state ,the test group were compared with a control group include 30 apparently healthy volunteer

Blood specimens were collected for both group and the serum level of cardiac troponinI (CTnI) were determine age and gender of the test group were matched with control group the serum levels of CTnI were measured by using i-chroma-tm system (immunoassay)

Statistical analysis were done by using SPSS computer analysis programmed for analysis of results

The results of this study indicate significant raised means of the serum levels of CTnI of the test group when compared with control group

In conclusion the current study indicates that serum level of CTnI is important marker to evaluate heart damage in acute myocardial infarction and other cardiac diseases.

مستخلص الدراسة

اجريت هذه الدراسة المقطعية فى الفترة ما بين مارس 2012 الى اغسطس 2012 م لقياس ولتقيم تربونين فى مركز السودان للقلب ومستشفى الرباط الجامعى فى السودانين المصابين بمرض القلب من النوع الذبحة الصدرية بولاية الخرطوم

تم اخيار 30 من السودانين المصابين بمرض الذبحة الصدرية كمجموعة اختبار حيث قورنت هذه المجموعة مع مجموعة ضابطة تضم 30 من المتطوعين الاصحاء

وفى هذه اتم جمع عينات الدم من كلا المجموعتين ومن ثم تم تحديد مستوى تربونين القلب من النوع الدراسة طويقت اعمار وجنس المجموعة الضابطة

كما استخدم i-chromatm (immuno assay) باستخدام جهاز اتم قياس تربونين القلب من النوع برنامج الحزم الاحصائية للعلوم الاجتماعية لتحليل النتائج

عند المرضى اشارت هذه الدراسة الى زيادة ذات دلالة احصائية فى متوسط تربونين القلب من النوع ($P < 0.05$ المصابين بالذبحة الصدرية عند مقارنة بالمجموعة الضابطة)

($p > 0.05$ لايتاثر بالعمر و الجنس) او وضحت الدراسة ان متوسط التربونين من النوع

يساعد فى التشخيص بحالات الاحتشاء القلبي هذه الدراسة تؤكد ان قياس مستوى تربونين القلب من النوع ECG) ومتابعتها عندما لاتتوفر المعلومات السريرية الكافية وفحوصات يخطيط القلب (

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Abbreviation

MI	Myocardial infarction
CTnI	Cardiac Troponin I
CTnT	Cardiac Troponin T
CTnC	Cardiac Troponin C
CHD	Coronary heart Disease
AMI	Acute Myocardial Infarction
WHO	World Health Organization
DCM	Dilated cardiomyopathy
HCM	Hypertrophic cardiomyopathy
ARVC	Arrhythmogenic right ventricular cardiomyopathy
RCM	Restrictive cardiomyopathy
CHF	congestive heart failure
CCF	congestive cardiac failure
ECG	Electrocardiography
CK-MB	creatine kinase-MB
HDL	high density lipoprotein
HER	embryonic heart rate
BPM	beats per minute
SA	sinoatrial node
AV	atrioventricular node
PDAY	Path biological Determinants of Atherosclerosis in Youth

CVD	cardiovascular disease
LA,RA,LL	left arm , right arm and left leg
LDH	Lactate dehydrogenase
AST	Aspartate aminotransferase
GPBB	Glycogen phosphorelase
CRP	C reactive protein
AMA	Ischemic modified albumin
ATP	adenosine triphosphate
PCr	phosphocreatine
ADP	adenosine diphosphate
CKm	mitochondrial creatine kinase
CK-MM	creatine kinase-Muscel
CK-BB	creatine kinase-Brain
HK	Hexo kinase
SPSS	Statistical package for Social Science

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