يسْمُ الْلَّهِ الرَّحْمَنِ الرَّحِيمِ
قَالَ تَعَالَى: ﴿سُبْحَانَكَ لَا عِلْمَ لَنَا إِلا مَا عَلِمْتَنَا﴾
إِنَّكَ أَنتَ الْعَلِيمُ الْحَكِيمُ
سورة البقرة
صدِّقَ اللَّهُ الْعَظِيمُ
Dedication

To my wife for her unrelenting support.

To my teachers who teach me how to be successful, diligent and an ideal person. Who pushed me towards the
preeminence and opened for me doors for better life which is full of cooperation, harmony and sociability.

I dedicate my research and I hope that I was succeeded to satisfy all the wanted information.

**Acknowledgment**

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Besides, he teaches me how the best work can be achieved by best working.

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Lists of Abbreviations
Acute Coronary Syndrome.
Aorta.
Anteroposterior.
Aortic Regurgitation.
Aortic Stenosis.
Atrioventricular node.
Coronary Artery Disease.
Cardiac Computed Tomography.
Coronary Heart Disease.
Computed Tomography.
CT Angiography.
Diagonal.
Dilated Cardiomyopathy.
Electrocardiography.
Echocardiography.
End Diastolic diameter.
End Systolic diameter.
Hypertrophic Cardiomyopathy.
Inferior Vena Cava.
Left Atrium.
Left Anterior Descending artery.
Left Anterior Oblique.
Left Circumflex.
Left Internal Mammary Artery.
Left Main Coronary Artery or
Stem.
Left Ventricle.
Milligram.
Myocardial Infarction or Ischemia.
Milliliter.
Mitral Regurgitation.
Mitral Valve.
Non ST elevation MI.
Obtuse Marginal.
Posteroanterior.
Posterior Descending Artery.
Pound/Square Inch or Pound-force/Square Inch.
Percutaneous Transluminal Coronary Angioplasty.
Posterior Wall.
Right Atrium.
Right Anterior Oblique.
Right Coronary Artery.
Restrictive Cardiomyopathy.
Right Ventricle.
Right Ventricular Outflow Tract.
Septal branch.
Sinoatrial node.
second.
Superior Vena Cava.
Saphenous Vein Graft.

Transoesophageal Echocardiography.

Transthoracic Echocardiography.

Ventricular Septum.

Ventricular Septal Defect.

Unstable Angina.
Abstract

The type of this study is experimental study, which done in Khartoum State in two centers of cardiac catheterization laboratories.

Many doctors request coronary angiogram for patients with changes in electrocardiographic (ECG) or echocardiographic investigations and this procedure is an invasive, high cost and high risk procedure, and many of results are normal.

The main objectives of this study are to determine the findings of ECG and echocardiography in cases of normal coronary angiograms and detect the accuracy of them in diagnosis of myocardial ischemia or infarction.

The study was based on one hundred (100) patients with clinically diagnosed of myocardial infarction or ischemic heart disease, and were grouped according to gender, male (43) patients and female (57) patients and according to age (25 - 78) years old. (1) patient had an aged between (20-29) years, (8) patients had an aged between (30-39) years, (31) patients had an aged between (40-49) years, (24) patients had an aged between (50-59) years, (18) patients had an aged between (60-69) years, (18) patients had an aged between (70-79) years.

It was concluded that the ECG had a positive findings in sixty five (65%) cases of study sample, and negative in thirty five (35%) cases of study sample. The echocardiography had a positive findings in forty five (45%) cases of study sample and negative in
ملخص الدراسة

ترتّب هذه الدراسة إلى تحديد وإيجاد التغيّرات التي يُظهّرها جهاز رسم كهربائيّة القلب والأجهزة القلبية والأنف للكبد. لتحديد مثاليّة القسطرة التشخیصيّة للّشرابين التاجيّة وقد كانت تُتيحها طبيعًا وآليًا تقدير دقة كل من هذه الجهازين في استخدام أمراض الشرايين التاجيّة.

يعتمد هذه الدراسة على 100 عينة من المرضى الذين شُخص حالتهم طبيًا ورغمهم مصابة بالشفط الذري أو إيجاد عُلامة القلب حيث تم تفسيرهم إلى مجموعة إستنادًا إلى الجنس: المجموعة الأولى 43 رسم وعّدهم 43 رسم والمجموعة الثانية إناث 62 رسم وعّدهم 57 رسم. تم تقسيمهم إلى 6 مجموعات إستنادًا إلى العمر (20-29) و (30-39) و (40-49) و (50-59) و (60-69) و (70-79) و (80-89) و (90-99) و (100-109). و أُجري لهم فحصيّ المؤجّات فوق الصوتيّة للقلب ورسم كهربائيّة القلب إلا أن عمليّات القسطرة التشخیصيّة للّشرابين التاجيّة أظهرت خلاف ذلك.

خلصت الدراسة إلى أنّ (65%) من المرضى لديهم تغيّرات مُمَّوحّة عندما أُجري لهم رسم يحكيّط القلب الكهربائيّة بينما (35%) منهم لم يظهر لدىهم أيّ تغيّير. أمّا المرضى الذين أُجري لهم فحصيّ المؤجّات فوق الصوتيّة فقد أظهرت نتائج المحاولة أنّ (45%) منهم لديهم أمراض في الشرايين التاجيّة بينما (55%) منهم ليس لديهم سوءًا ممّا يُبيّن مدى دقة المؤجّات فوق الصوتيّة مقارنة برسم كهربائيّة القلب.