

**Sudan University of Science and Technology**

**Faculty of Post Graduate Study**

**Department of Radiological Technology**

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**Radiologic Technology**

**Role of Cardiac Catheterization in Diagnosis and  
Treatment of Coronary Artery Diseases**

**دور قسطرة القلب في تشخيص وعلاج أمراض الشرايين التاجية**

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**٢٠١٥**

# **Dedication:**

I dedicate this research to my beloved Family, parents, friends, lecturer and all individuals who participated the efforts which have been carried and by the participants led to the Success of the research.

# **Acknowledgement**

Firstly we would like to thank ALLAH because everything in this world belongs to him. We are so grateful to extend our acknowledgement to all individuals who participated in data collection.

To my colleague in ALMAFRAQ hospital in the different department, especially Radiology department Abudhabi - U.A.E, Supervisor Dr Asma Ibrahim.

## **Abstract**

The aim of this study to explain the importance of cardiac catheterization in diagnose and treatment of cardiac diseases.

Retrospectively this study carried out in 69 patient referred to Cardiac catheterizations in Elemarat teaching hospital department from March 2015 to July 2015.

Their ages running between (22-83 years). Table (4-1), 66 patient are male percentage (95.7%) and 3 patients are female percentage (4.3%) table (4-2) Most of patients come in emergency hospital they are 48 patients percentage (69.6%), 9 patients transfer from acute care facility percentage (18.6%), and 12 patients from other hospital percentage (17.4%).

The main factor lead to cardiac abnormalities in this study was hypertension percentage (94.3%).

The study found that the main affected coronary artery is left percentage (65.0%)

This study found that most of patient was treated by using interventional radiology percentage (84.0%)

The study conclude that cardiac catheterization is best modalities in diagnosed and treatment of cardiac disease by using interventional radiology.

## الدراسة ملخص

أجريت هذه الدراسة علي 69 مريض من الفتره ما بين مارس و 2014 إلي يوليو 2015 في الإمارات العربية المتحدة.

وكان معظم المرضى رجال و عددهم 66 بنسبه ( 95 % ) وباقي المرضى نساء و عددهم 3 بنسبه ( 14.3 % ) وكانت أعمارهم تتراوح ما بين ( 22-38 ) وأكثر الأعمار أصابه ما بين ( 40-59 ) بنسبه 55.1%.

معظم المرضى حضروا في أقسام الطواري والإصابات وكان معظمهم يشكون من الألم حادة في الصدر.

خلصت الدراسة أن السبب الرئيسى في أمراض القلب يرجع إلي إصابات مزمنة ب ارتفاع ضغط الدم بنسبه ( 50.7 % ) وان أكثر شرايين القلب التاجية تأثرا هو اليسر بنسبه ( 65% ).

الدراسة أن ( 85 % ) من المرضى تم علاجهم بواسطة قسطرة القلب بطرقها المختلفة. اكدت

وكذلك أكدت الدراسة أن مخاطر قسطرة القلب التشخيصية والعلاجية اقل بكثير من فوائدها وهي تمثل نسبه ( 16% ).

خلصت الدراسة إلي أن قسطرة القلب هي الوسيلة الأحسن والأأنجح في علاج وتشخيص أمراض شرييين القلب التاجية.

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## List of the abbreviations

<b>CHD :</b>	<b>Coronary Heart Disease</b>
<b>IVUS :</b>	<b>Intravenous Ultra Sound</b>
<b>ICD</b>	<b>Implanted Cardioverter</b>
<b>MI :</b>	<b>Myocardial Infarction</b>
<b>FFR</b>	<b>Fractional Flow Reserve</b>
<b>CAD :</b>	<b>Coronary Artery Disease</b>
<b>heart Failure</b>	<b>HF :</b>
<b>PCI</b>	<b>Precautious Coronary Intervention</b>
<b>CABG :</b>	<b>Coronary Artery Bypass Graft</b>
<b>LV Systolic Dysfunction</b>	<b>left ventricular Systolic Dysfunction</b>
<b>CATH Lab</b>	<b>catheterization lab</b>
<b>IHD :</b>	<b>Ischemic Heart Disease</b>
<b>PTCA :</b>	<b>percutaneous Transluminal Coronary angioplasty</b>
<b>LMCA :</b>	<b>Left Main Coronary Artery</b>
<b>CX :</b>	<b>Circumflex Artery</b>
<b>LCX</b>	<b>Left Circumflex Artery</b>
<b>LAD :</b>	<b>Left Anterior Descending Artery</b>
<b>HDL :</b>	<b>High Density Lipoprotien</b>
<b>LDL :</b>	<b>Low Density Lipoprotien</b>
<b>NSTEMI :</b>	<b>non-ST elevation Myocardial Infruction</b>
<b>MCG :</b>	<b>Multifunctional Cardiogram</b>
<b>ECG :</b>	<b>Electro Cardiogram</b>
<b>ACC :</b>	<b>American College Of Cardiology</b>