

Dedication

To my father *Ahmed Mohammed Abdulbagi*

Who always supported me in every endeavor

To my mother *Omalhassan Mohamed*

Who is the reason I am here at all, and made me who I am today

To my *brothers and sisters*

If I donated to you everything in this world, is not enough to give you your right

Acknowledgement

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Thirdly I would like to thanks CT department staff in El-NILEIN DIAGNOSAPUL CENTER , FIDAIL CENTER , ROYAL CARE HOSPITAL and FAISAL SPECIALIZED HOSPITAL .

Finally I would like to thanks my friends, teachers and collegus.

Table of Contents

| Subject | Page |
|---------------------|-------------|
| Dedication | I. |
| Acknowledgement | II. |
| List of contents | III. |
| List of Tables | VI. |
| List of Figures | VIII |
| Abstract in English | XI |
| Abstract in Arabic | XII |

| Chapter one | |
|-----------------------|---|
| Introduction | 1 |
| Problem of the study | 2 |
| Objectives | 2 |
| Overview of the study | 2 |

| Chapter two | |
|---|----|
| Back ground | 4 |
| Anatomy & physiology Respiratory system | 4 |
| Upper Respiratory Structures | 5 |
| Lower Respiratory Structures | 5 |
| Structures within the Thoracic Cage | 7 |
| The Lungs | 7 |
| The Pleura | 8 |
| The Diaphragm | 8 |
| Pulmonary & Bronchial Circulation | 8 |
| Physiology of Gas Exchange | 9 |
| Ventilation - Lung Mechanics | 12 |
| Ventilation - Lung Volumes and Capacities | 12 |

| | |
|---|----|
| Terminology Meaning Normal Values in a Healthy, Young Male | 13 |
| Ventilation - Lung Elasticity and Compliance | 14 |
| Diffusion | 14 |
| Transport | 15 |
| Pathology of the lung | 16 |
| Epidemiology | 19 |
| Predisposing factors | 19 |
| Natural history | 19 |
| Diagnosis | 21 |
| Clinical presentation | 21 |
| Computed tomography | 23 |
| Acute Pulmonary Embolism (Helical CT) | 25 |
| Echocardiography | 33 |
| Diagnostic strategies | 35 |

| Chapter Three | |
|--------------------------------|----|
| Materials & Methods | 45 |
| Place & time of the study | 45 |
| Patient's population | 45 |
| Instrumentation used | 45 |
| Equipment Components | 45 |
| Slip ring technology | 48 |
| Basic scan parameters | 48 |
| Patient preparation | 49 |
| Technique | 49 |
| Requirements | 51 |
| Acquisition Parameter | 51 |
| Contrast Medium Administration | 52 |
| post processing technique | 52 |
| Visualization tool | 52 |
| Multiplanar reconstruction | 53 |

| Chapter Four | |
|---------------------|----|
| Results | 54 |

| Chapter Five | |
|---------------------|----|
| Discussion | 62 |
| Conclusion | 66 |
| Recommendation | 68 |
| References | |
| Appendices | |

List of Tables

| Table No. | Title | Page No. |
|------------------|--|-----------------|
| (4-1) | Distribution of pt's ages. | 54 |
| (4-2) | Distribution of pt's gender. | 55 |
| (4-3) | The common presenting symptoms within sample population | 56 |
| (4-4) | shows the presence of DVT | 57 |
| (4-5) | The most common underlying lung disease | 58 |
| (4-6) | Pulmonary Embolism present within sample population | 59 |
| (4-7) | Measurement of RT and LT Pulmonary arteries in PE infected | 60 |
| (4-8) | Shows Location of PE in males and females. | 61 |

List of Figures

| Figure No. | Title | Page No. |
|-------------------|---|-----------------|
| (2-1) | shows anatomy of respiratory system | 4 |
| (2-2) | shows anatomy of the lungs | 7 |
| (2-3) | shows Computed tomography angiogram in a 53-year-old man with acute pulmonary embolism | 26 |
| (2-4) | Figure(2-4) shows Computed tomography angiography in a young man who experienced acute chest pain and shortness of breath after a transcontinental flight | 27 |
| (2-5) | Computed tomography angiogram in a 69-year-old man with known pulmonary arterial hypertension and a history of chronic pulmonary embolism | 28 |
| (2-6) | shows Computed tomography angiogram in a 69-year-old man with known pulmonary arterial hypertension and a history of chronic pulmonary embolism | 29 |
| (2-7) | shows Computed tomography angiogram in a 53-year-old man with acute pulmonary embolism | 31 |
| (2-8) | shows Computed tomography angiography in a young man who experienced acute chest pain and shortness of breath after a transcontinental flight | 32 |
| (2-9) | Proposed diagnostic algorithm for patients with suspected high-risk PE | 37 |
| (2-10) | Proposed diagnostic algorithm for patients with suspected non-high-risk PE | 38 |
| Figures3-1(a,b,c) | shows CT Equipment | 47 |
| (4-1) | Age distribution | 54 |
| (4-2) | Gender distribution | 55 |
| (4-3) | shows the Clinical indication | 56 |

| | | |
|--------------|---|----|
| (4-4) | shows the presence of DVT | 57 |
| (4-5) | shows the most common underlying lung disease | 58 |
| (4-6) | shows the Pulmonary Embolism present within sample population | 59 |
| (4-7) | Measurement of RT and LT Pulmonary arteries in PE infected | 60 |
| (4-8) | Shows Location of PE in males and females | 61 |

Abstract

The study aimed to determine the role of spiral CT Angiography in suspected cases of acute Pulmonary Embolism at duration (Agusust –November 2011)

The study was conducted at EL-Nilien center , Royal care center and Faisal center where there were enough cases to study and the availability of required machine and materials to perform proper examination .

Fifty patients of suspected pulmonary embolism (PE) of different ages and genders underwent spiral CT angiography from the level of arch of aorta to the dome of diaphragm . Scanning was done using Semince(4 multi slice) and Toshiba (64 multi slice) machines with collimation of 1-2mm and an interval of 2mm at 60-160 mA and 120-135kV 100ml of contrast was injected at a flow rate of 3-4 ml sec with a scan delay of 12-16 second . Spiral CTA was found to be an effective method for the diagnosis of pulmonary embolism . Out of 50 patient 38 (76%) were positively identified with pulmonary embolism , more over females were most likely presented with PE . Additionally during the study , it was noted that the Rt pulmonary artery was affected more than the Lt pulmonary artery .

The research confirmed that, the spiral CT scanner more acurat modality in detection of pulmonary embolism , it is non –invasive procedure , low cost , and has a high specificity , for that preferred it used as the first line of investigations in diagnosing of Pulmonary embolism .

ملخص البحث

استهدفت الدراسة مدى دقة الأشعة المقطعية الحلزونية فى تشخيص الجلطة الرئوية الحادة

أجريت هذه الدراسة في مركز النيلين التشخيصي ومستشفى رويال كير التخصصي ومستشفى فضيل التخصصي حيث توفر الحالات المرضية الكافية لإجراء الفحوصات

أخضع 50 مريضاً من المتوقع إصابتهم بالمرض من مختلف الأعمار والأجناس لفحص الأشعة المقطعية الحلزونية من مستوى الشريان الأورطى إلى أعلى الحجاب الحاجز وتم استخدام محدد بمقياس 1-2ملم ومدى قدرة 2 مم 60-160 مللى أمبير و 120-135 كيلوفولت تم حقن المرضى بوسيط تباين 100-150مل بمعدل إنسياب 3مل/ثانية ومعدل ثابتي مقداره 12 ثانية .

توصلت الدراسة إلى أن استخدام الأشعة المقطعية الحلزونية هي الطريقة المثلى في تشخيص الجلطة الرئوية الحادة . وأوضحت الدراسة أن نسبة المصابين بالمرض تقدر ب 76% من إجمالي المرضى المشتبه بإصابتهم و الجدير بالذكر أن النساء أكثر عرضة من الرجال للإصابة بهذا المرض و أن الشريان الأيمن أكثر عرضة للإصابة من الشريان الأيسر

في الختام توصلت الدراسة إلى أن جهاز الأشعة المقطعية الحلزونية يمتاز بحساسية عالية في كشف حالات الجلطة الرئوية وذلك لسهولة الإجراء ودقة النتائج والتكلفة المالية . وبنا على النتائج التي تم التوصل إليها عبر

الدراسة , يوصي الباحث باستخدام الأشعة الحلزونية كخطوة أولى لتشخيص
الجلطة الرئوية الحادة.