Dedication

To the spirit of my father.

To my mother, brother, sisters, wife and daughters.

To my country and to the staff of the High institute of health sciences.

I dedicate this research.

Acknowledgments

I would like to express my deepest gratitude to my supervisor *Ustaz. Adil Abdullah Hago* for his guidance and continuous encouragements.

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List of abbreviation

NO	Abbreviation	Meaning
1	T12	12 th thoracic vertebra
2	L4	4 th lumber vertebra
3	L1	1 st lumber vertebra
4	ADH	Antidiuretic Hormone
5	DTPA	Diethylene-triamine pertactic acid
6	MAG-3	Mecaptoacetyl triglycine
7	CR	Conventional Radiography
8	U/S	Ultrasound
9	CT	Computed tomography
10	MRI	Magnetic resonance imaging
11	NM	Nuclear medicine
12	P.C.T	Proximal convoluted tubule
13	D.C.T	Distal convoluted tubule
14	L2	2nd lumber vertebra
15	NaCl	Sodium chloride
16	NaHCO3	Sodium hydrocarbonate
17	PO4	Phosphate
18	EU	Excretory urography
19	I.V.U	Intra-venous urography
20	K.U.B	Kidney, ureter and bladder
21	CM	Contrast media
22	SPSS	Statistical Package for Social Sciences

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Abstract

The researcher selected this study to show the role of medical Radiologic imaging modalities in diagnosing the common renal diseases in Sana'a (capital of Yemen). In Yemen, the faults in medical field are due to bad diagnosis.

The researcher found that, the common renal disease in Sana'a was renal stones, and the most imaging modality used was U/S. The researcher also found that main causes of improper role of diagnostic radiology are low qualifications of employers in medical field, and lack of communication between them. On the other hand there is no quality assurance programme in radiology departments in Sana'a.

In this study, the researcher gave adequate review about the anatomy and physiology of the renal system, and the common diseases which affect kidneys. The review also includes brief information about the Radiological investigations of the kidneys.

The researcher also displayed the procedures of the research and the methods of data collection (*practice*, *interviews*, *and questionnaires*) used, and he mentioned the steps of data analysis. He wrote the results of the study with its statistical tables and graphs. The results of the research were discussed. Conclusion and specific recommendation were given

ملخص البحث

اختار الباحث هذا الموضوع من أجل إيضاح دور الوسائل التشخيصية الإشعاعية في تشخيص أمراض الكلى بصنعاء (عاصمة

الجمهورية اليمنية)، في اليمن اتضح أن مشاكل المجال الطبي ترجع إلى سوء التشخيص.

توصل الباحث إلى أن مرض الكلى الشائع في صنعاء هو حصاوي الكلى، كما أن وسيلة التشخيصية الأكثر استخداماً هي الموجات فوق الصوتية ، كما وجد الباحث أن الأسباب الأساسية للواقع الغير مثالي للأشعة التشخيصية يرجع إلى ضعف تأهيل العاملين في الحقل الطبي ، وسوء العلاقة بينهم، ومن جانب آخر لا يوجد برنامج لضمان الجودة في الوحدات التشخيصية بصنعاء.

في هذا البحث أيضاً قدم الباحث ملخصاً مناسباً عن تشريح ووظائف الجهاز البولي ، وعرض الأمراض الشائعة التي قد تصيب الكلى، كما احتوى الملخص على معلومات مختصرة عن الفحوصات الإشعاعية الخاصة بالكلى.

الباحث أيضاً عرض إجراءات البحث وطرق جمع البيانات التي استخدمها (العملي، المقابلات، الاستبيانات)، وتعرض أيضاً لخطوات تحليل البيانات، ثم قام بعرض النتائج مدعومة بالجداول والرسومات الإحصائية، نوقشت نتائج البحث. وقد قام الباحث بالتعرض لخاتمة البحث والتوصيات التي تحل المشاكل التي وجدت في البحث.

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