

DEDICATION

I would like to dedicate my thesis to:

The tender man ...

My Father

The Kindest woman ...

My Mother

To my dearest friends

To everyone who participated and

Helped me in the dissertation

ACKNOWLEDGMENT

I would like to express my greatest gratitude to Dr. Ahmad mostafa my supervisor,(Sudan university, faculty of radiology)for supervising this work to layout .

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Last but not least , I will never forget the unlimited assistance .

Abstract

Kidneys may be exposed to many pathological conditions; Diabetes mellitus is a common multi-systemic disease with serious effects on the urinary system.

The aim of this study was to evaluate diabetic patient kidney (length, width, CT number and cortex to medulla ratio) using CT scan.

The study were done at Sudan center and Ribat hospital from may 2015 to august 2015 ,for 50 diabetic patients (31 males and 19 females), 3 of them are type 1 diabetic mellitus, and 47 are type 2, their age ranged between 45-58 years old and there was 100 normal patient as control group.

Pregnant women and patient with renal congenital anomalies, renal tract obstruction, malignant tumor and renal failure were excluded.

The result of the study showed that as the duration of diabetes increase the length and width decrease but the CT number and C/M ratio increase. Furthermore, it reveals that increase in duration of diabetes has direct impact on kidney texture

These findings could be utilized as assessment of the diabetes severity and its impact on renal system.

ملخص البحث:

تتعرض الكلى الي حالات مرضية متعددة وداء السكري أكثر الامراض تأثيرا علي الجهاز البولي. هدفه هذه الدراسة لتقييم كلى مرضى السكري (طول ,عرض ,رقم السي تي و نسبة القشرة للنخاع) باستخدام التصوير بالاشعة المقطعية.

قد اجريت هذه الدراسة في مركز السودان و مستشفى الرباط في الفترة من مايو 2015 و حتي اغسطس 2015 , لعدد خمسون مريض سكري (31 رجل و 19 اثني) 3 من النوع واحد و 47 النوع الثاني لمرض السكري و تتراوح اعمارهم من 45 وحتى 58 سنة وكان مقارنة مع 100 شخص سليم من المجموعة الضابطة وقد استبعدت النساء الحوامل ومرضى التشوهات الخلقية للكلى ,انسداد مجري الكلى ,الاورام الخبيثة و الفشل الكلوي.

و قد اظهرت النتائج انا طول فترة المرض يقلل من طول و سمك لكن رقم السي تي و نسبة القشرة للنخاع تزيد.

بالاضافة لذلك وجد ان زيادة طول فترة الإصابة بمرض السكري لهو تأثير مباشر في شكل الكلى. ويمكن استخدام هذه النتائج لتقييم حدة مرض السكري وتأثيره علي النظام الكلوي.

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