### بسم الله الرحمن الرحيم

# قال تعالى:

قُال إِنَّمَا أَنَا لَيْ مَّشْلُكُم يُ وَحِي إِلَيَّ أَنَّمَا إِلَهُ كُمْ إِلَهُ أَواحِدُ فَمِن كَانَ يَ أَبُحو لَ ِ قَاءَ رَبِّهِ فَ لَيُعْلَى عَملا صَالِحًا ﴾ صَالِحًا ﴾ والحِدِّ اللهِ عَلَى اللّهِ عَلَى اللهِ عَلَى اللّهِ عَلَى اللّهُ عَلَى اللّهِ عَلَى اللّهِ عَلَى اللّهِ عَلَى اللّهُ عَلَى

صدق الله العظيم

سورة الكهف (الاية:110)

## **DEDICATION**

We would like to dedicate this research to:

Our fathers and mother

Who show us continuous support and love
Brothers, sisters, relatives and friends

For their help during the hard time

Teachers and colleagues

For their responsibility and hard working

For everyone from whom we learned

### Acknowledgement

Firstly our thankful is to Allah who helped us to finish this work

Secondly we would like to express our gratitude to all our teachers who did their best in giving us all they have sincerely and honestly and special regards to our supervisor, Mariam Abass Ibrahim, for her advice and help during work in this research.

Also special acknowledgement and thanks goes to Sudan University of Science and Technology specifically; College of Medical Laboratory Science, Department of Clinical Chemistry.

#### **Abstract**

The present study carried out during the period from February to May 2014 in Khartoum state, and aimed to estimate plasma urea and creatinine in type 2 diabetic patients.

Thirty diabetic patients (sample collected from Zenam specialized hospital) and 20 apparently healthy individual (sample collected from Sudan University of Science and Technology) were enrolled in this study. Enzymatic method was used to estimate plasma urea level and kinetic method was used to estimate plasma creatinine.

Statistical analysis was done by SPSS, showed that there is no significant difference between plasma creatinine in type 2 diabetic patients and control group (p.value 0.571), and there is a significant difference between plasma urea in type 2 diabetic patients and control group (p.value 0.019).

From this study it is concluded that there is no difference in the level of plasma creatinine in type 2 diabetic patients and control group, and the level of plasma urea increased in type2 diabetic patients.

### ملخص البحث

اجريت هذه الدراسة لمعرفة تأثير مرض السكري على وظائف الكلى عند مرضى السكري من النوع الثاني وذلك بمعرفة مستوى البولينا والكرياتنين في بلازما الدم ,تم جمع 30 عينة دم من مرضى السكري من مستشفى زينام التخصصي و 20 عينة دم اخرى من اصحاء كعينة مثالية في الفترة ما بين فبراير وحتى مايو 2014م.

استخدمت الطريقة انزيمية لقياس تركيز البولينا والطريقه الكاينتيكية (الحركية) لقياس تركيز الكرياتينين

أثبتت نتائج هذه الدراسة انه لايوجد اختلاف بين مستوى الكرياتنين عند مرضى السكري والاصحاء ولكن يوجد اختلاف في مستوى البولينا عند مرضى السكري والاصحاء.

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