

# **Dedication**

**To all those who  
helped me achieve  
my goals**

**To all those who  
showed me how to  
be patient and work  
hard**

**To my family for  
supporting me  
financially and**

**encouraging me to  
make my dream  
come true**

# **Acknowledgment**

I am thankful to Gracious God for granting me the knowledge, the will and the strength to complete this work. With a great deal of respect I would like to thank Dr. Mohammed Siddig my supervisor for his patience, guidance, support and valuable advice through the preparation of this study till its completion. Great thanks to Dr. Areej, who helped me in collecting the samples for this study. I would like also to thank Mr. Abdallah H. Elnabi, Mr. Abu Al-gassim and Mr. Sharaf Eldin for their constant help and advice. Special thanks goes to all those who helped me in samples and data collection from Khartoum hospitals.

Finally I would like to thank my colleagues and my friends Tgwa, Huda, Sana, Isra, Afra, Ibthaj, yasir ,Mohammed Abdalhafize, Faris, Basheer and Waleed for their support and encouragement.

## **Abstracts**

This is a descriptive hospital base study conducted in Khartoum state, during the period from December 2009 to June 2010. This study aimed to identify the frequency of Candida species in the oral cavity of diabetic patients in Khartoum state. The samples were collected from 550 individuals divided as follows: 500 specimens were collected from diabetic patients as case group, their ages ranged between 11 to 85 years. Other 50 specimens were collected from non diabetic individuals as a control group. Buccal smears were prepared fixed and stained using Papanicolaou stain and examined under light microscope. The cytological assessment among study group revealed the following findings: 9.4% bacterial infection, 7.4% oral candidiasis, 0.6% viral infection, 10.2% non specific inflammatory changes and 0.4% keratinization, with significant relation between cytological changes and diabetes mellitus ( $p \text{ value} < 0.05$ ), these changes depend on the type and duration of diabetes mellitus and age of patients.

The study found a significant relation between diabetes mellitus and oral candidiasis ( $p \text{ value} < 0.05$ ) and these relations depend on the type and duration of Diabetes mellitus.

This study concluded that oral candidiasis associated with diabetes mellitus and causing cytological changes in the

oral cavity of diabetic patients; these changes depend on the type and duration of Diabetes mellitus .

## خلاصة الاطروحه

أجريت هذه الدراسة الوصفية المستشفوية في عدد من مستشفيات ولاية الخرطوم في الفتره ما بين ديسمبر 2009 إلى يونيو 2010 هدفت هذه الدراسة إلى تحديد وتيرة المبيضات الفموية والتغيرات الخلوية المصاحبة لها في تجويف الفم لمرضى داء السكر في ولاية الخرطوم. تم جمع العينات من 550 فرد تم تقسيمها على النحو التالي ، 500 عينة من مرضى يعانون من داء السكر، تراوحت أعمارهم بين 11-85 عاما ، 50 عينة أخرى من افراد متطوعين لا يعانون من داء السكر كفئه ضابطه. تم استخدام صبغة البابانيكولا لصبغ مسحات خلايا جدار الفم المثبتة وفحصت تحت المجهر الضوئي. أظهر البحث نتائج إيجابية في المجموعة تحت الدراسة وكانت نتائج مسحات الفم كالآتي: 9.4 % عدوى بكتيرية، 7.4 % مبيضات فموية ، 10.2 % عدوى فيروسيه ، 0.6 % تغيرات التهابية غير محددة و 0.4 % فرط التقرن، مع وجود علاقة ذات دلالة بين التغيرات الخلويه وداء السكر وهذه التغيرات تعتمد ( $p. value < 0.05$ ) احصائيه على نوع ومدة داء السكر وعمر المريض. توصلت الدراسة إلى وجود علاقة قوية بين وهذه العلاقة تعتمد على ( $p. value < 0.05$ ) داء السكر و عدوى المبيضات الفموى. نوع داء السكر ومدة الاصابة.

خلصت هذه الدراسة الى أن عدوى المبيضات الفموى مرتبط بداء السكر وتسبب التغيرات الخلويه في تجويف الفم لمرضى داء السكر وهذه التغيرات تعتمد على نوع داء السكر ومدة الاصابة.

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