

**Sudan University of Sciences and
Technology**

College of Graduate Studies and Scientific Research

**Study of Cytomorphological Pattern of
Urine in Cigarette Smokers in Khartoum
State.**

**دراسة النمط الشكلي الخلوي للبول عند مدخني
السجائر في ولاية الخرطوم**

A thesis submitted for the partial fulfillment for M.Sc Degree
in Histopathology and Cytology.

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Dedication

TO.....

All the love I found in yours

I will be forever thank for father and mother

TO.....

All those who help me up

TO.....

My beloved brothers and sisters

TO.....

The people, whom I love, respect and appreciate.

Acknowledgement

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هذه هي الدراسة التي أجريت في الفرز من كلية الحقوق بجامعة السودان للعلوم الطبية وقسم التشريح المرضي مختبر علم الخلايا ، خلال الفترة من ابريل الى آب 2011. لتقدير نمط Cytomorphological إيداع البول بين مدخني السجائر، وصمة عار وصمة عار بابانيكولاو والتقلدية باستخدام الخلوي. وشارك 150 شخصا في الدراسة ، 100 ومدخني السجائر ، و 50 فرد كانوا غير المدخن ، ومدة التدخين ومتغير عدد السجائر المدخنة يوميا وأيضا متغير ، تم استبعاد الفرد مع التاريخ من التهابات المسالك البولية من الدراسة ، وأعدت التشويه ، ثابتة في 95٪ كحول الأثيل وصمة عار ملطفة بابانيكولاو ثم درست تحت المجهر. تراوحت العلاقة بين الفئة العمرية ونتائج الخلوي في الفئة العمرية 128 (85.3٪ العادي ، 18 (12٪) التغيرات الالتهابية و 4 (2.7٪) عن التغيرات مع نموذجي ، من 46 إلى 9 55years : تقييم الخلوي يكشف ما يلي (6٪) من الحالات مع التغيرات الالتهابية SIG مع 0.000 القيمة ، في حين أن العلاقة بين التدخين في فترة سنة ونتيجة الخلوي ، يدخن لمدة 21 إلى 10 (10 26years) والتغيرات الالتهابية 2 (2٪) والتغيرات ذات قيمة نموذجية مع 0,000 كبيرة ، وعدد من تدخين السجائر في اليوم الواحد لنتيجة الخلوي 7 (7٪) والتغيرات الالتهابية 3 (3٪) والتغيرات النموذجية مع سينج مع 0,000 القيمة. على أساس هذه الدراسة والمراجعة للأدب أن نستنتج ما يلي : تدخين السجائر هو واحد من عوامل الخطر من التغيرات الالتهابية وغير نمطية التي يمكن دراستها باستخدام خلايا البول ، وتغير نمطية Cytomorphological يرتبط مع كبار السن ، ومدة أطول وعدد كبير من السجائر التدخين في اليوم.

Abstract

This is a screening study carried out in University of Sudan Faculty of Medical Laboratory Sciences Histopathology and Cytology department, during the period from April to August 2011. To assess the Cytomorphological pattern of urine deposit among cigarette smokers, using conventional cytological stain Papanicolaou stain. 150 individuals participated in the study, 100 were cigarette smokers, and 50 individual were non smoker, the duration of smoking was variable and the numbers of cigarettes smoked per day was also variable, individual with history of urinary tract infections were excluded from the study,. Smear were prepared, fixed in 95% Ethyl alcohol and stained with Papanicolaou stain then examined under the microscope. The cytological assessment reveals the following: 128 (85.3%) normal, 18 (12%) inflammatory changes and 4 (2.7%) reported with a typical changes, the association between age group and cytological results in age group ranged from 46 to 55years 9(6%) cases inflammatory changes with p value 0.000 sig, while association between duration of smoking per years and cytological result, smokes for 21 to 26years 10(10%) inflammatory changes and 2(2%) a typical changes with p value 0.000 significant, and number of cigarettes smoking per day for cytological result 7(7%) inflammatory changes and 3(3%) a typical changes with p value 0.000 sig. On the basis of this study and review of literature we conclude that: Cigarettes smoking is one of risk factor of inflammatory and atypical changes that can be studied using urine cytology, atypical Cytomorphological changed is associated with older age, longer duration and large number of cigarettes smoking per day.

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