

## الآية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

{ قَالَ رَبِّ أَوْزِعْنِي أَنْ أَشْكُرَ نِعْمَتَكَ الَّتِي أَنْعَمْتَ

عَلَيَّ وَعَلَىٰ وَالِدَيَّ وَأَنْ أَعْمَلَ صَالِحًا تَرْضَاهُ

وَأَطِيعُ لِي فِي خُرَاجِي إِنْ نِيَّ تُبَيِّتْ إِلَيْكَ وَإِنِّي

مِنَ الْمُسْلِمِينَ }

[الأحقاف، الآية ١٥]



# Dedication

*I would like to dedicate this dissertation to.....*

*My mother.....Aisha...*

*My father..... Ali...*

*My brothers....Eldisoogy, Mustafa and Faroog...*

*My sisters.....Iman, Ibtiha and Gwairya....*

*My friends....Hashim, Mohamed Hashim and Hossam...*

*All .....Teachers, colleague and friends in my life.*

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*Finally I would like to thanks all people who help me to perform this work,*

## *Abstract*

This study was conducted at different health centers in Khartoum state, during the period between June 2007 to March 2008. This study aims at the evaluation of the effect of rehydration of air dried smear compared with conventional wet prepared smears in cervical cytology. Also to demonstrate the incidence of atypical cells among the studied group.

Fifty cervical smears were collected from women attending different health centers. Smears were prepared using three different techniques; conventional wet fixed pap stain, rehydration of air dried smear using Normal saline post fixed by 95% ethanol and air dried methanol fixed giemsa stain.

This study showed that there was no significant difference between rehydrated air dried smears in which 18% showed excellent stain, 70% showed good stain and 12% with poor stain and conventional wet prepared smear in which 20% showed excellent stain, 70% showed good stain and 10% with poor stain. There was significant difference between rehydrated air dried smear, conventional wet prepared smears versus air dried giemsa stained smears in which 0% showed excellent stain, 54% showed good stain and 46% with poor stain.

In this study the incidence of atypical cells was seen in the age group (45-55 years), and among having low education level, also the incidence increased in those of more to than six previous pregnancies. Also atypical cells were detected in contraceptive pills users.

Further studies are recommended to confirm these findings, and to implement this new procedure in non gynecological cytology.

## الخلاصة :

أجريت هذه الدراسة بعدة مستشفيات ومراكز صحية بولاية الخرطوم في الفترة من يونيو ٢٠٠٧ حتى مارس ٢٠٠٨. هدفت الدراسة لمعرفة تأثير اعادة ترطيب المسحة المجففة مقارنة بالطريقة التقليدية، وهل بالامكان استخدامها كطريقة بديلة لتحضير مسحة الخلايا المتساقطة. كما هدفت الدراسة ايضا لمعرفة نسبة وجود الخلايا اللانمطية في مجتمع الدراسة.

اخذت مسحات لعنق الرحم من خمسين سيده شاركن في هذه الدراسة ، تم تحضير المسحات بثلاث طرق: طريقة بابنيكالو التقليدية، اعادة ترطيب المسحة المجففة باستخدام "ملح الطعام" قبل تثبيتها بالايثانول وطريقة صبغ المسحة بصبغة الجمسا بعد ان تجف.

خلصت الدراسة لعدم وجود فروقات بين المسحات التي تم تثبيتها بالايثانول قبل ان تجف ( ٢٠% من الشرائح اعطت نتائج ممتازة، ٧٠% جيدة و ١٠% سيئه) والمسحات المجففة التي تم اعادة ترطيبها باستخدام ملح الطعام ( ١٨% من الشرائح كانت ممتازة، ٧٠% جيدة و ١٢% سيئه). كما وجدت فروقات مقدرة بين الشرائح التي حضرت وصبغت بالطريقة التقليدية والتي تم اعادة ترطيبها باستخدام "ملح الطعام" وتلك التي صبغها بصبغة الجمسا، حيث اعطت الآخيره ٥% من الشرائح ممتازة و ٥٤% جيدة و ٤٦% سيئه.

خلصت الدراسة ايضا لوجود علاقة بين ظهور الخلايا اللانمطية (٤%) والسيدات اللائي تجاوزن الخامسة والاربعين، واللائي اقل تعليما، واللائي زاد عدد مرات حملهن عن الستة مرات وكذلك اللائي استخدمن موانع الحمل.

توصى الدراسة باجراء دراسات اخرى لتأكيد هذه النتيجة وتطبيق هذه الطريقة الجديدة في مجالات علم الخلايا الاخرى غير المختصة بامراض النساء.

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## List of abbreviation

.....	.....
AD	Air Dried
CIN	Cervical intraepithelial neoplasia
CT	Computed tomography
FNAC	Fine-needle aspiration cytology
FNAB	Fine-needle aspiration biopsy)
HIV	Human immuno deficiency virus
HPV	Human pappiloma virus
IUCD	Intera uterine contraceptive devices
IVUs	Intera vaginal Urogrames
MGG	May grunwald Giemsa stain
MRI	Magnetic resonance imaging
OCs	Oral contraceptives
RADP	Rehydrated air dried prepared pap smear
RB1	Retinoblastoma 1
RICK	Radio and isotope centre Khartoum
SCC	Squamous cell carcinoma
SIL	Squamous intra epithelium neoplasia
SPSS	Statistical package for social science
W P, WF	Wet fixed- Pap stain smear