

# **Dedication**

For

All the love I found in yours

I will be forever thankful mama & dad

For

All those who help me up & never let me fall

For

All those who suffered from absence of  
assistance

*For*

*Memory of Hana and Ahmed*

I dedicate this study....

## **Acknowledgment**

This research took me almost a year, by that time; I have met with a great people whose contribute in many ways to come out with this project. It is a pleasure to convey my gratitude to them.

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## **Abstract**

Urine cytology is useful in the diagnosis of urinary tract infections, some cancers, and other diseases. Those benefits are useful for renal transplant patients due to infections and cancers as a result of prolonged immunosuppressant. This study carried out in December 2009 to July 2010 at Dr. Salma center for kidney disease and Sudanese association for renal transplant. The study aimed to demonstrate the cytomorphological changes in the urine of renal transplant patients. Cytological changes were investigated among 182 patients aged between 13-71 years. Full voided urine samples were collected. The smears were prepared, fixed and stained with Papanicolaou stain, then examined and evaluated. The following was found; 123(67.6%) without pathological abnormality, 45(24.7%) bacterial infections, 2(1.1%) candida infections, 2(1.1%) actinomyces infection, 3(1.6%) BK polyoma virus infection, 2(1.1%) both BK polyoma virus and HPV infection, 2(1.1%) human papilloma virus (HPV) infection, 1(0.5%) HPV and Candida infection, 1(0.5%) HPV infection and dyskaryosis and 1(0.5%) dyskaryosis. The result agree with other research, in that renal transplant patients more susceptible for infectious disease, infection with HPV and BKV is related to sex (0.001) and the patients receive Tacrolimus more susceptible to get BK infection(P.value=0.006). From all the study conclude that the bacterial infections are the most common finding, Renal transplant patients with high risk for Bk polyoma virus and Human papilloma virus. Study suggests systemic cytological screening for patients which is useful in early detection of disease.

## مقدمة

علم الخلايا البولى مفيد في تشخيص التهابات المسالك البولية ، وبعض أنواع السرطان ، وأمراض أخرى. هذه الفوائد هي مفيدة لمرضى زارعى الكلى نتيجة للإصابة بالسرطان و الالتهابات نتيجة لتنبيط المناعة لفترات طويلة. أجريت هذه الدراسة في ديسمبر 2009 إلى يوليو 2010 في مركز د.سلمى لامراض الكلى والجمعية السودانية لزارعى الكلى. هدف الدراسة هو إظهار التغيرات الخلوية في البول لدى زراعى الكلى. تم جمع 182 عينة من البول الكامل للمرضى الذين تتراوح أعمارهم بين 13-71 سن. ، المسمحه جهزت و صبغة بصبغة بابانيكولا ، اظهر تشخيص مسحات البول الاتي ؛ 123 (67.6٪) لا يوجد تغيرات مرضية، 45 (24.7٪) التهابات البكتيرية ، 2 (1.1٪) التهابات المبيضات، 2 (1.1٪) التهابات البكتيريا شبيهة الفطريات,3(1.6%) التهاب ال بى كى ، 2(1.1%) التهاب فيروس الورم الحليمي البشري و ال بى كى, 2 (1.1%) فيروس الورم الحليمي البشري ، 1 (0.5%) التهاب فيروس الورم الحليمي البشري والمبيضات,1(0.5%) التهاب فيروس الورم الحليمي البشري وفرط الث قرن,1(0.5%) لديهم فرط الث قرن. تتفق هذه الدراسه مع البحوث الأخرى ، في أن مرضى زارعى الكلى أكثر عرضة للأمراض المعدية، وان الاصابه بفيروس الورم الحليمي و فيروس البي كى له علا قة بجنس المريض

وان الادويه المتبطة للمناعه (التاكلوريموس) لها تاثير في الاصابه بفيروس البي كى خلصت هذه الدراسه الى ان معظم التغيرات نتيجة لاصابات بكتيرية و أن مرضى زارعى الكلى أكثر عرضه

للاصابة بالتهابات فيروس الورم الحليمي البشري و الـ بي كـى. الدراسة تشير إلى الفحص الخلوي

النظمية للمرضى مفيد لاكتشاف الامراض المبكرة

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