

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى:

(قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ)

صدق الله العظيم

سورة البقرة الآية (32)

## **Dedication**

*To ...*

*My Mother and Father*

*To ...*

*My Teachers & Colleagues.*

*To ...*

*My Sister, Brother and Friends*

*To ....*

*The people whom I love, respect and appreciate*

## **Acknowledgement**

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## Abstract

**Introduction:** There is strong epidemiologic evidence linking *Schistosoma haematobium* infection with carcinoma of the bladder. The cytological screening for urinary tract cancer is not fully evaluated in Sudan. **Objectives:** The aim of this study is to demonstrate the Cytomorphological changes among Sudanese patients with urinary Schistosomiasis in Khartoum city. **Material and methods:** Cross sectional hospital base study, Sample collected from Khartoum North Teaching Hospital, its processing and preparation was done at University of Sudan Faculty of Medical Laboratory Sciences, post graduate research laboratory. Two hundred patients, with confirmed diagnosis of urinary Schistosomiasis approached. Full voided urine was collected in sterile container; cytological smear was prepared from sediment and stain with Pap stain. **Results:** the majority of patient their age less than 20 year. Ova detected in 69(34.5%) of patient samples, the cytological finding among this group was that 67 (33.5%) were normal, and two (1.0%) cases reported as atypical. While the rest of urine sample 131 (65.5%) were negative for bilharzias ova and atypia. **Discussion:** The outcome of this study is in agreement and in consistence with previous works and literature performed In Egypt, Kenya and West Africa. It disagrees with some studies due to difference in method of investigation and study groups. **Recommendation:** Parents should look after their children and advise them not to swim or urinate in irrigation canals. Further studies are needed to address this topic with large sample size. Future study may investigate patient with different types of bladder cancer in histopathological sections, and screen the presence of *Schistosoma* infection.

## الخلاصة

**مقدمة:** هناك دليل قوى يربط بين وبائية عدوى البلهارسيا الدموية مع سرطان المثانة، الفحص الخلوي للكشف عن سرطان المسالك البولية لم يقيم بشكل كامل في السودان.

**الأهداف:** الهدف من هذه الدراسة هو إظهار التغييرات الخلوية بين مرضى البلهارسيا البولية

**المواد والأساليب:** أجريت هذه الدراسة المقطعية في مراكز صحية مختلفة ، وقد تم جمع أكثر العينات من مستشفى الخرطوم بحري التعليمي، تم تجهيز وإعداد عينات الدراسة في جامعة السودان - كلية علوم المختبرات الطبية في مختبر أبحاث الدراسات العليا. شملت الدراسة عدد مائتي مريض مصابين بالبلهارسيا البولية. وقد تم جمع البول الكامل في وعاء معقم، تم تجهيز المسحات الخلوية من رواسب البول وصبغها بصبغة البابا نيكولا.

**النتائج:** معظم المرضى أعمارهم اقل من 20 عاما. اكتشفت بويضات البلهارسيا في 69 (34.5 %) من عينات المرضى ، التغييرات الخلوية بين هذه المجموعة كانت كالاتي 67 (33.5 %) كانت طبيعية ، واثنان (1.0 %) خلايا غير نمطية. في حين كانت بقية عينة البول 131 (65.5 %) السلبية لبويضات البلهارسيا كانت طبيعية.

**مناقشة:** إن نتائج هذه الدراسة تتفق وتتسق مع الدراسات السابقة التي أجريت في مصر وكينيا وغرب إفريقيا. وتختلف مع دراسات أخرى نظرا للاختلاف في أسلوب التحقق ومجموعات عينات الدراسة. **التوصية:** ينبغي على الآباء أن يراقبوا أبنائهم ونصحهم بعدم السباحة أو التبول في قنوات الري. هناك حاجة لدراسات أخرى لمعالجة هذا الموضوع مع زيادة حجم العينات . توصى هذه الدراسة في المستقبل التحقيق من سرطان المثانة في عينات نسيجية ووجود عدوى البلهارسيا.

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