

Prevalence of Urinary Schistosomiasis among Attending AL-Kuwait Hospital During The War In Sana'a

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Abstract:- For many years, Yemen has suffered of urinary schistosomiasis which consider one of the neglected tropical disease. So this study was occupied to determine the incidence of urinary schistosomiasis between patients who attended AL- Kuwait hospital during the war in Sana'a city with the risk factor. Totally 100 specimens suspected with urinary schistosomiasis was collected from patients who attended AL- Kuwait hospital from February 2019 to March 2020. The questionnaire was done to know some information like Regine, age, sex, and some risk factor like immigration and job. All specimens were examined by filtration technique to identify *Schistosoma haematobium*. Of 100 samples investigated, there were 40 /100 (40%) *Schistosoma haematobium* which were among male. Urinary schistosomiasis had the highest prevalence within range age (15-25) years (70%) in Amran 18 /40 (45%) then Hajjah 13 /40 (32.5%). In additional, urinary schistosomiasis had the highest prevalence with volunteering 23 /40 (57.5%) and immigration 18 /40 (45%) as a risk factor. In Yemen, recently the prevalence urinary schistosomiasis are higher due to the ware which has made people without a house, service and salary.

Keywords:- Urinary Schistosomiasis, AL- Kuwait Hospital, Sana'a City.

I. INTRODUCTION

Schistosomiasis or bilharzia, a parasitic infection, is caused by blood trematode worms which belonging to the genus *Schistosoma* (ANTWlet *et al.*, 2014 and Colley *et al.*, 2014). Schistosomiasis one of the neglected tropical disease (NTD), which needs surveillance and regular mass drug administration (MDA) especially in highly endemic countries (Sadyet *et al.*, 2013 and Salwaet *et al.*, 2016).

One type of Schistosomiasis is urinary schistosomiasis caused by *S. haematobium*. The adult worms of *Schistosoma haematobium* inhabit the venous plexus of the bladder and produce eggs that are typically passed in the urine. Urinary schistosomiasis are characterized by hematuria as a major sign with dysuria, bladder wall pathology, hydronephrosis, and it can develop into carcinoma (Sadyet *et al.*, 2013 and Colley *et al.*, 2014).

Many factors have made Yemen endemic for *Schistosoma* such as poverty, civil wars, a deteriorating economy and immigration since 1970. So the Yemen's government has started its first campaign with the World Bank and World Health Organization (WHO) to eliminate schistosomiasis since 2008 (Oshishet *et al.*, 2011 and Sadyet *et al.*, 2013). Which lead to decrease the positive schistosomiasis in different hospitals, especially in Sana'a city (WHO, 2013).

There are many studies revealed the high prevalence of urinary schistosomiasis in rural areas of Taiz, Tamar, and Hajjah (Abdulrab, *et al.*, 2013, Sadyet *et al.*, 2013). However, recently the prevalence of urinary schistosomiasis increase in town. So this study aims to determine the incidence urinary schistosomiasis between patients who attended AL- Kuwait hospital during the war in Sana'a city and determine the risk factor.

II. MATERIALS AND METHODS:

This study occurred in AL- Kuwait hospital in Sana'a city from February 2019 to January 2020. Collected 100 urine sample that were suspected schistosomiasis from 9:00 pm to 12:00 pm with questioner was used to collect data about the demographic, socio-economic, environmental background.

➤ Examination of urine:

The filtration method and microscopy were used to diagnose *S. haematobium* as shown:

- 1- Macroscopic test was done by dipstick.
- 2- 10 ml of urine was filtered through a nylon filter.
- 3- the filter was placed on a single slide labeled for the identification.
- 4- The slides were examined microscopically and the eggs count expressed as a number per 10 ml of urine (Karen *et al.*, 2011).

➤ Statistical analysis:

It was used by using 20 SPSS. Percentage and Chi – square test were used to evaluate the degree of the significance with 95% confidence ($p < 0.05$).

III. RESULT AND DISCUSSION

Of 100 patients attended AL- Kuwait hospital and suspected urinary schistosomiasis, there were 40 \100 (40%) *Schistosoma haematobium*. And 60% varies infection like (pyelonephritis, stones and prostate). Urinary schistosomiasis had the highest prevalence within range age (15-25) years (70%) whereas the lowest prevalence of Urinary schistosomiasis within range age (10-15) years (2.5%) as shown at table1. This due to most patients who attend AL- Kuwait hospital are volunteer in war and their family.

Age groups	Positive case number	Percent
10-15	1	2.5%
16-25	28	70%
26 – 45	11	27.5%

Table 1:-The prevalence of urinary schistosomiasis according age

This study shows that the highest prevalence Urinary schistosomiasis among male 100%. This due to religious and cultural tradition. In Yemen, the men who participated in the war also go to search about food and water. This result agrees with **Sadyet *al*, (2013)** who concluded that male had higher prevalence of schistosomiasis than females (33.6% vs 29.0%).

The results explained the highest infection by urinary schistosomiasis in Amran then Hajjah as shown in table(2) because they have a war and difficult ways to live also many people without a house and salary. This result was supported by **Nagi (2005)** who explain the highest prevalence of schistosomiasis (58.9%) was reported among children from Khamir district, Amran province.

Residence	Number the cases	Percent
Amran	18	45%
Hajjah	13	32.5%
Damer	8	20%
Sana,a	1	2.5%
Total	40	100%

Table(2): prevalence urinary schistosomiasis among patients.

This study explained the frequencies of the risk factors of urinary schistosomiasis from positive isolates, including immigration 18/40 (45 %), volunteer 23/ 40 (57.5 %). The war, destruction the house and loss family that have made people immigrate to other cites. In additional lager percent of guys who are volunteering in war and their circumstance not good.

The most infection with urinary schistosomiasis between patients is slight <50 eggs /10ml (98%) so this illustrate why they did have symptoms except blood during urine.

IV. CONCLUSIONS

Schistosomiasis one of the neglected tropical disease (NTD). In the past, Yemen suffers of urinary schistosomiasis which may be decreased with special time after governments seek, but recently prevalence urinary schistosomiasis are higher due to the war which has made people without a house, service and salary.

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