Study about The Relationship between Schistosomiasis and Bladder cancer in Najaf Al-Ashraf hyphen Al-sader Teaching Hospital-Iraq During 2020

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Abstract

The research was begin from January to December 2020 cross-sectional study doing at Al Sader Teaching Hospital in Najaf, Iraq. Collected 70 samples from patients were collehhcted randomly for the study, 14 of the samples were schistoma malignant carcinoma and 10 were benign lesion.

The results of the study revealed that an schistoma and bladder carcinoma. Was found a positive association between them the urine analysis, X-ray used indicate present egg of schistoma in urine and tumor like structure in mucosa of bladder, biopsy done and tissue slide examine, show hitological change in mucosa, submucosa and muscle of bladder membrane.

The study aim was knowledge the relationship between schistoma and bladder cancer in infective patient.

Introduction

Schistoma it trematodes, know (blood flukes). It parasite flatworm Causes hight significant groups infection in human called schistosomiasis, it second most parasite disease (after malaria) effected hundred of millions infected [1, 2].

Schitoma is causes acute and chronic disease by blood flukes (trematode worm) called schistimasis, Estimate show that at least 236, 6 million people required prevent treatment in 2019 people become infected by larval of the parasite put in freshwater, snail penetrate the skin when infested water [3, 4].

Schistoma found in tropical and subtropical area, especially in poor city without disinfected water and sanutation, there are 2 major of scistosoma -intestinal and urogenital. schistoma causes the disease according to the particular schis. Species involved, but granuloma contain schi. Ova are found in liver, bowel and bladder mucosa and in lung. the ova detected in H&E stain [5].

Schistoma can be causes inflammatory polyposis (particulary in distal colon) with associated mucosal granularity, penetrate ulcer, and hemorrhage, Egg may be detected in histologic spacaimen and are son calcified [6].

Bladder cancer is common in Zimbabwe, because high prevalent of schistoma haematobium infection, bladder cancer prevalent related to geographical ergoin and and schi. Haema. Found infection, 483 patient identified (1984-1987) with marked histology had squamus cell carcinoma, the patient under 50 year old [7].

Urinary bladder cancer is widespread in the middle east and part of Africa, where schi. Is widespread, the cancer by schi. Include geographical correlation between two gender and age. The infection experimentally animal was positive case by carcinogenic factor like Nnizroso compound apper in high level in the urine.

The association between bilharziasis and bladder cancer, schi haem. Causes chronic infection and major of morbidity in many countries, bilharzial tumor may be differentiated from non-bilharzial tumor by their young age greater male/female ratio. Pathology and clinical presentation, bladder tumor have been successfully induce in animal exposed to schi. Haem [8].

Bedwani et al. [9], have study about clinical history of urinary between smoking and non-smoking a, modestly associated with increase bladder cancer risk, explaining some 16 % of bladder cancer cases in egyptain population, male ever-smokers without such history and 3-4 for men ever infection with urinary sch. And ever- employed in high risk compared with those never-infection .

Salem et al. [10], bilharzial bladder cancer common cancer particularly in Egyptian men. carcinoma in bilhariza bladder causes squamus cell type, certain change in Egyptian occurred Associated carcinoma sq.cell carcinoma and increase transitional cell carcinoma.

Material and method.

1 -G.U.E: Tape urine analysis a urinalysis can reveal blood in the urine, even if it is not visible to the naked eye. This bladder cancer screening is practiced during a visit to the doctor or urologist. Cooled ones are a strip impregnated with a substance that reacts with blood in a urine sample. Strip staining immediately indicates whether the result is positive or not. If the result is positive, the doctor will suggest additional tests to be performed by specialized laboratories. A urine-cell bacteriological analysis revealed the presence of bacteria due to traces of blood in the urine that may be a result of a urinary tract infection. Usually, urine is sterile. A cytological examination confirms the presence of blood, and any cancer cells will be detected. If an urologist is suspected of bladder cancer, other in-depth reviews will be offered. In addition to an examination of the bladder.

2-Biopsy=Surgical doctor taken tissue sample from the bladder and sent to histopathological laboratory for making slid and examination the lesion :

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3-Hemoxythin and Eiosin: It is a common staining method in histopathology lab. And make several slide for examination under light microscop.

4-Radiographic examination: It shows knowing the location of the damage, the large size of the crystal and the type of tumor .

Result

1-The number of cases received to hospital during at years 2020, As 70 cases were reported, the number of infected cases was 24, while the rest of the cases are normal. number of females (8), number of male (16), have clinically symptom of disease. Age range from (30-70).

The following chart shows the relationship between the number of cases and number of months.

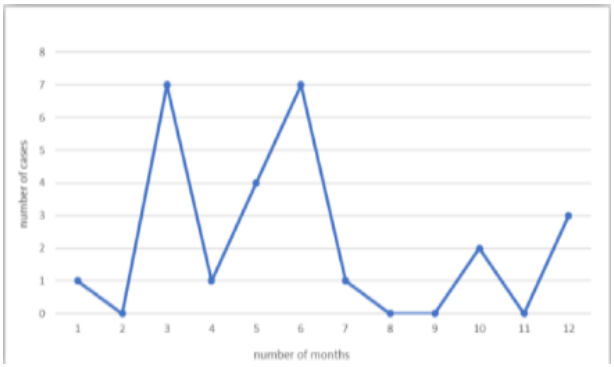

Fig 1. numbet of months

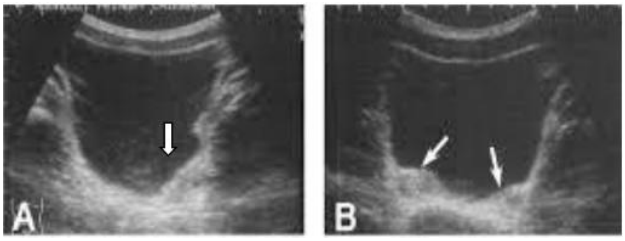

Fig 2. 2-X-Ray

X-ray picture (A-B) show tumor like structure in the mucosa bladder (arrow).

Urin Analysis :- Use sedimentation method to show the egg of schistoma in mine, Centerfuge 2500 I p1m . take sample from the sediment and examine under light microscope to found the egg of schistoma .

Fig 3 =Egg of Schististoma in sediment of urine x 40.

Biopsy

Take sample from infective bladder tissue to make slide by use Hematoxylin and Eiosin method :It is a common sta ining method in histological examination .the sample but in formalin 10%.parafin block processes, thin tissue 4micron use. the result of histopathological test of bladder biopsy show very clear the over growth in mucosa and egg of schistostoma embedded into the tissue .

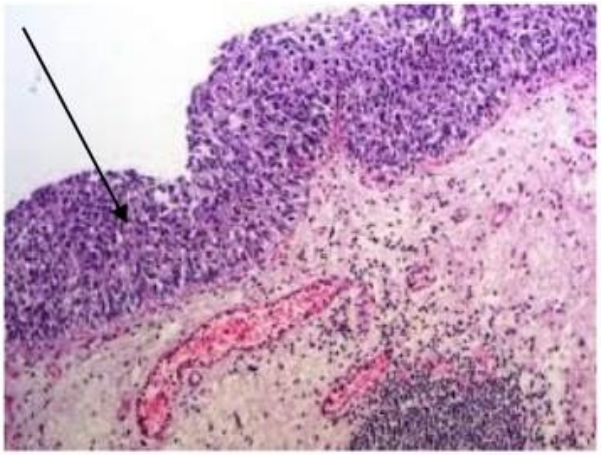

Fig.3=show squamuse cell carcinoma of bladder (arrow) .x40 .

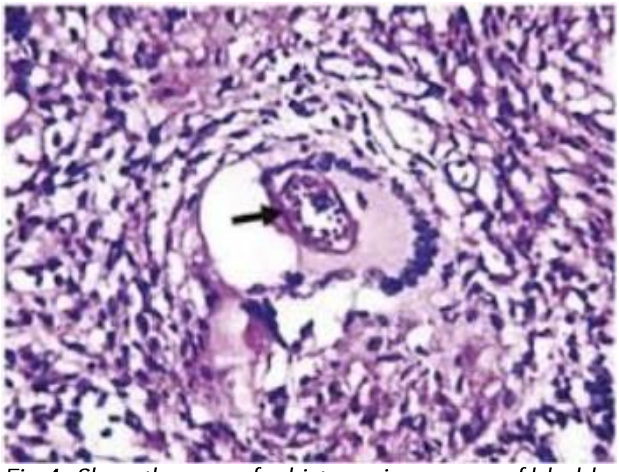

Fig.4=Show the egg of schistoma in mucosa of bladder (arrow) .x40.

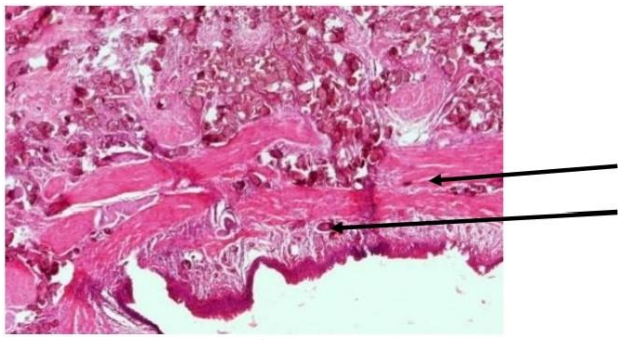

Fig S=Show the egg of Schistosoma in sub mucosa and muscle and show the muscle fiber irregular in shape (arrow)x40.

Discussion

In this study twenty four tissue blokes sample were collected and stain with hematoylin and eosin which were examine d under a light microscope for diagnosis of malignant or benign .It was found 14 malignant (20 %) and 10 was benign with out schistoma at age 30-70 years, this percentage of schistoma agree with study Antoni et al. [11] said 430, 000 cases in 2012, more than 60%of allbladder cancer, 165, 000patiant was death.

Thomas et al. [7] refer the schi. Haem. was prevalence in Zimbabwe and there are related between the schi. And bladder cancer under 50 year old .

In this study there are found positive case for bladder cancer, this result was typical according to Dr. Alexander

which said the urinary bladder carcinoma was widespread in middle East.

The result show in histological change in wall of bladder with Squamous cell type very clear in the slide .this result agree with result of Salem et al. [10].

This case was consider the first time record in Al-Najaf city in Iraq .

Conclution

The result was a positive test for the relation between schistoma and bladder cancer in patient infection with schistoma in Al-Najaf government .

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