

BLADDER CANCER IN BASRAH: A CLINICOPATHOLOGICAL STUDY

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ABSTRACT

Bladder cancer is one of the commonest malignancies in Iraq and especially in Basrah province. This retrospective study was conducted to outline some of the clinicopathological aspects (namely sex, age, presenting symptom, site, type, grade, stage and bilharzial ova association) of bladder cancer in our locality. The study was done on 442 cases collected from different histopathological laboratories from 1989-1998. Males were more affected than females in a ratio of 2:1. The commonest age group was the seventh decade of life in males and sixth decade of life in females. Haematuria was the commonest presenting symptom (70.7%). Transitional cell carcinoma was the commonest histopathological type (65.4%) followed by squamous cell carcinoma (27.6%) in both sexes. Bilharzial ova were seen in 5.7% of cases. The study also showed a defect in both clinical and histopathological reports.

INTRODUCTION

It is well known that the whole urothelium bathed in urine and is permanently exposed to various harmful agents, even carcinogenic substances, ingested or produced as metabolic by-products.^[1] It is no wonder, thus, that the whole urotract, including the bladder is one of the most frequently affected systems by various benign and malignant neoplasms. However inspite of all efforts, the etiology of the disease has not been fully elucidated.^[1] In Iraq, bladder cancer was considered to be the second in incidence only to carcinoma of lung in males and the seventh malignancy in females.^[2] In Basrah, previous studies showed that bladder cancer was the first commonest cancer in males and the second in females.^[3] It was found more in males than in females. The mean age of incidence is 65 years.^[2] In the United States bladder cancer is the sixth most commonly diagnosed malignancy; and it is 2-5 times more common in men than in women.^[4] Histologically, transitional cell carcinoma is the most frequent type of bladder cancer, forming in Iraq 62 % of the total cases followed by squamous cell carcinoma (25%)^[2]. In the United States, transitional cell carcinoma comprises more than 90%^[4]. This study was conducted to clarify the clinicopathological aspects of bladder cancer regarding sex, age, presenting symptom, site, type, grade, stage and bilharzial ova association.

PATIENTS & METHODS

A retrospective record-based study was done. The histopathological reports of Al-Sadder teaching hospital and Al-Wiswasy private laboratory for the period from 1989-1998, were reviewed. All cystoscopic and cystectomy clinical requests and histopathological reports were reviewed regarding sex, and age of patients, clinical presentation, site, type, grade and stage of tumor; as well as presence or absence of Bilharzial ova. The SPSS statistical computer system version 10 was used for analysis of the results.

RESULTS

A total of 442 cases of bladder cancer have been reviewed. 302 (68.3%) were males and 140 (31.7%) were females. The male: female ratio was 2.2:1.

Table-1 shows, the age distribution of patients with bladder cancer in both sexes. The most common age group was the seventh decade of life in males (35.8%), while it was the sixth decade in female (36.1%). Only 123 (28%) of reports showed records of the clinical data. The presenting symptoms were haematuria in 87(70.7%) of patients, dysuria in 21(17%), retention of urine in 13(10.5%), suprapubic mass in one (0.8%) and finally abdominal pain in one patient (0.8%).

Table 1. Distribution Cancer of bladder cases according to age and sex

Age	Male No. (%)	Female No. (%)	Total (%)
20-29	6 (2.1)	2 (1.5)	8
30-39	8 (2.8)	3 (2.3)	11
40-49	36 (12.5)	34 (25.6)	70
50-59	96 (33.3)	48 (36.1)	144
60-69	103 (35.8)	38 (28.6)	141
>70	39 (13.5)	8 (6.00)	47
Total	288 (100)	133 (100)	421

Table-2 shows, tumors distribution according to type in both sexes. Transitional cell carcinoma was the commonest tumour in both males (69.5%) and females (56%) followed by

squamous cell carcinomas in both males (23.5%) and females (36.4). There was a significant association between the sex and type of tumor (P<0.05).

Table 2. Distribution of bladder tumors according to type in both sexes.

Sex/Type	Transitional cell Ca. No. (%)	Squamous cell Ca. No. (%)	Undifferentiated Ca. No. (%)	Adeno Ca. No. (%)	Total No. (%)
Male	210 (69.5)	71 (23.5)	15 (5)	6 (2)	302 (100)
Female	79 (56)	51 (36.4)	8 (5.7)	2 (1.4)	140 (100)
Total	289 (65.4)	122 (27.6)	23 (5.2)	8 (1.8)	442 (100)

Table-3 shows, bilharzial association with tumour type. Calcified bilharzial ova were seen in only 5.7% of tumours. Bilharziasis was associated with 9.8% of squamous cell carcinomas in comparison to 4.5% of transitional cell carcinoma. The association

between bilharziasis and tumour type was found to be significant (P<0.05). The site, grade, and stage of tumours were rarely mentioned in the clinical and pathological reports and so they were omitted from the analysis.

Table 3. The relationship between type of tumour and bilharziasis.

Tumor type	Bilharziasis		Total No. (%)
	Negative No. (%)	Positive No. (%)	
Transitional Cell Ca.	276 (95.5)	13 (4.5)	289 (100)
Squamous cell Ca	110 (90.2)	12 (9.8)	122 (100)
Undifferentiated Ca.	23 (100)	0	23 (100)
Adeno Ca.	8 (100)	0	8 (100)
Total	417 (94.3)	25 (5.7)	442 (100)

DISCUSSION

Bladder cancer is one of the most common types of malignant tumors.^[3] In the present study haematuria was the presenting symptom in about 71% of cases. Other studies reported approximately 70-90% of bladder cancer cases were diagnosed because they cause microscopical or gross haematuria.^[5,6] The incidence of bladder cancer increases with age. It has been reported that approximately 80% of newly diagnosed cases in both men and women occur in people aged 60 years and older.^[7] In the present study bladder cancer was uncommon before the fifth decade of life; thereafter it

started to increase with a peak incidence in the seventh decade for men and the sixth decade for women. Bladder cancer affects predominantly male population. Male: female ratio differs from country to country. It is usually 4:1, but there are regions with higher (30:1 in Palestine in non-Jewish population) or lower ratio (1:1.9 in Taiwan-regions with endemic black foot disease) or even higher in female population (New Zealand, Maoris-0.3:1).^[7, 8] In this study a ratio of 2:1 was seen. In the western and non bilharzial endemic countries transitional cell carcinoma is the dominant histological type

accounting for more than 90%, squamous cell carcinoma comprises 3%, adenocarcinoma 2%, and undifferentiated 1%.^[5] In Egypt and other countries or regions where *Schistosoma haematobium* infection is endemic, squamous cell carcinoma is equal to or even higher than transitional cell carcinoma.^[5,9] In the present study transitional cell carcinoma was the commonest tumour (65.4%) in both sexes followed by squamous cell carcinoma (27.6%), undifferentiated carcinoma (5.2%) and adenocarcinoma (1.8%). Schistosomiasis is a well known etiological factor in the causation of carcinoma of bladder.^[10]

In the present study the frequency of bilharzial infection among patients with bladder carcinoma was 5.6% in comparison to a study done in our locality from 1969-1988 that showed 14.8%.^[6] In Egypt, however, carcinoma associated with bilharziasis was seen in 53.4%.^[9] This may be attributed to the achievement made by the *Schistosoma* control program done in our country. Therefore, it can be said that other factors are playing a major role in the causation of carcinoma of bladder in our locality. In this study a significant association between type of carcinoma and Bilharziasis was found, 9.8% of squamous cell carcinoma cases showed *Schistosoma haematobium* ova, while only 4.5% of transitional carcinoma cases showed such association. We conclude from our study that causes other than Bilharziasis may play a role in causation of bladder cancer that need to be investigated. On the other hand more efforts should be done in reporting clinical data and pathological reports to cover all missed information on bladder cancer in our locality.

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