

AUDIT OF THE BLADDER TUMOR PATIENTS AT SHEIKH ZAYED HOSPITAL, RAHIM YAR KHAN

Khalid Saeed,¹ Mian Muhammad Sajid,¹ Muhammad Tariq,¹ Tanvir-UI-Haq¹

ABSTRACT

Background: Pattern of bladder cancer is the second most common malignancy in urinary bladder. **Objectives:** To determine pattern of presentation, histopathology and management of urinary bladder cancer and to enlist the risk factors of urinary bladder cancer in patients reporting from District Rahim Yar Khan, adjacent districts of Sindh and Balochistan. **Materials & Methods:** This descriptive study was based on retrospective collection of data and conducted at Sheikh Zayed Hospital, Rahim Yar Khan, for a period of 3 years from 1st January, 2009 to 31st December, 2011. **Results:** During 3 years period of study, a total of 54 patients reported. The median age was 65 years. History of painless haematuria with lower urinary tract symptom was most common presentation in (80%), haematuria alone in (15%) and upper urinary tract symptoms were 5%. Eight percent cases of urinary bladder cancer were detected on ultrasound due to above symptoms. Twenty percent of urinary bladder cancer were detected incidentally on ultrasonography for some other problems. Complete Transurethral Resection of Bladder Tumor in single growth was done in 40 (74%) of patients. In 14 patients multiple bladder growths were detected on Cystoscopy. Intravesical Mitomycin-C and BCG were given in 70%. In our study the main risk factor was cigarette smoking and Hukkah (70%), in 20% of patient niswar (snuff) and other chemical exposure was seen. In 10% patients whose age was less than 30 years no risk factor was found. Histopathologically, transitional cell carcinoma 90.7%, adenocarcinoma 4.7% and squamous cell carcinoma 1.8%. 70% patients were treated with transurethral resection of bladder tumor with chemotherapy and immunotherapy, 20% with radiotherapy. In 10% patient's only symptomatic treatment was done due to multiple systemic disorders. One average, 18 new cases of urinary bladder cancer were registered at Sheikh Zayed Hospital, Rahim Yar Khan in every year. **Conclusion:** Our study revealed that bladder cancer was present in old age, and among male predominantly. Majority of the patients presented with painless hematuria and histopathological findings showed that transitional cell carcinoma was predominant type. Majority of the patients were treated with transurethral resection of tumor, with chemotherapy. There is need for the more epidemiologic indices in our region. This study suggests early detection of high risk group and support the development of preventive measures.

Keywords: Bladder cancer, Epidemiology, Risk factors.

INTRODUCTION

Bladder cancer in variably starts from inner most layer of the bladder and may invade into the deeper layers as it grows. Cancers are described by the types of cells from which they arise.¹ Bladder cancers arise almost exclusively from lining of the bladder. This simply means that the cancer started from lining of the bladder which is made of the transitional cells, less commonly other types of cancer arise from the lining of the bladder called adenocarcinomas and squamous cell carcinomas and small cell carcinomas.¹ Visually it may appear in various forms most commonly is a shrub-like appearance (papillary) but it may also appear as a nodule, an irregular solid growth or a flat barely perceptible thickening of the inner bladder wall.¹ Cancer is a fatal disease that causes death of

several people every year. More than 12 million cancer cases and 7.6 million deaths were estimated annually all over the world in 2007.³ Urinary Bladder cancer is the 9th most common malignancy in men and is accounted for about 330,000 new cases and 130,000 deaths per annum worldwide.² In 2009, approximately 71000 new cases were detected in the USA, with 14000 deaths.¹ The highest incidence have been found in Western Europe and North America, while the lowest incidence is seen in Asia.⁴ Bladder tumors occur rarely before the age of 40 but are most commonly observed in the age of 70 and above. The frequency of bladder cancer differs very much from country to country.³

Bladder cancer is more common in men than women, with a worldwide male/female ratio of 10:3.6. In Pakistan the number of bladder cancer cases and deaths are still unknown.⁵ The overall incidence of bladder cancer has apparently increased during recent decades.⁶

Smoking is considered as the main risk factor for urinary bladder cancer and about 50% of the bladder cancer cases have been assessed due to smoking. From several studies, about 4 times more risk was observed in the cigarette smokers as compared to the

1. Department of Urology, Sheikh Zayed Medical College/Hospital, Rahim Yar Khan, University of Health Sciences, Lahore.

Correspondence: Dr. Khalid Saeed, Assistant Professor of Urology, Sheikh Zayed Medical College/Hospital, Rahim Yar Khan,

Email: khalid_pansota@yahoo.com **Phone:** +92-9676228

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non-smokers.⁷

The risk of bladder cancer reduces in ex-smokers as compared to the continuous smokers. Occupational exposure was associated with increased risk of bladder cancer; especially the workers of dyes or paints factories, chemical factories and pharmaceutical industries who had 3 times more risk of urinary bladder cancer. The industrial workers, petroleum workers, rubber industries, shoe makers and lather tanners had significantly increased risk of developing bladder cancer. This study was conducted to determine pattern of presentation histopathology and management of urinary bladder cancer and to enlist the risk factors of urinary bladder cancer in patients reporting from District Rahim Yar Khan and adjacent districts of Sindh and Balochistan.

MATERIAL AND METHODS

This descriptive study was conducted in tertiary care hospital (Sheikh Zayed Medical College/Hospital, Rahim Yar Khan) over a period of three years from 1st January, 2009 to 31st December, 2011. The inclusion criteria of the study was all the patients who were admitted in the urology department diagnosed as cancer of urinary bladder. They underwent cystoscopy and transurethral resection of bladder tumor after clinical and laboratory evaluation. The tissue was preserved in 10% formalin and sent to histopathology laboratory for final diagnosis.

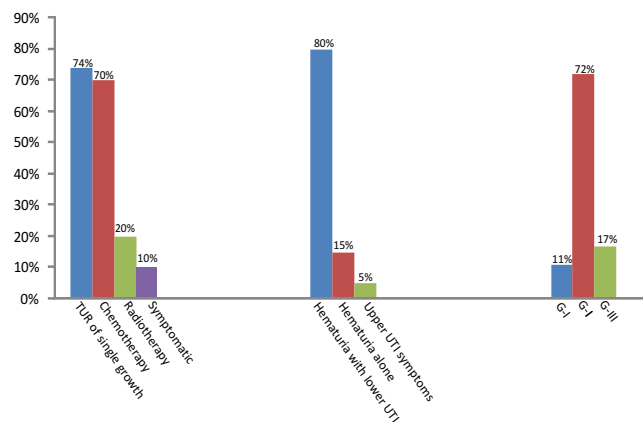
The main risk factors which were smoking and hukkah, smoking, snuff (naswar) and chemical exposure. The data was entered and analyzed in SPSS version 15.

RESULTS

Data from a total of 54 patients was analyzed. Median age at diagnosis was 65 years (ranging 28-75 years). There were 48 males (88.88%) and 6 females (11.12%) giving a male to female ratio of 8:1. The most common clinical presentation was hematuria with lower urinary tract symptoms (80%). Hematuria alone in 15% was noted and an upper urinary tract symptoms in 5%. Transurethral resection of single growth in first attempt was done in 40 (74%) patients. In 14 patients multiple bladder growth were detected on Cystoscopy. Different locations of bladder tumor during the cystoscopy was noted. In 29 patients (54%)

bladder growths was seen on lateral wall of the bladder. In 19 patient (35%) bladder growth was seen on the base of the bladder, in 4 patients (7%) bladder growth seen in trigone of bladder, in 2 patients (3.70%) bladder growth was seen on anterior wall of the bladder. Regarding appearance on cystoscopy, papillary growth was seen in 80%, cauliflower in 20%.

Figure 1: Clinical presentation, grades and management of Ca Bladder



In our study most common type detected was transitional cell carcinoma 90.7%, adenocarcinoma 4.7% and squamous cell carcinoma 1.8%. In 70.3% of patients the bladder growth was superficial on histopathology report and were treated by intravesical chemotherapy (mitomycin-C) or immunotherapy (BCG). In 30% of the patients histopathology showed muscle invasive growth; out of these 20% were treated with radiotherapy and in the remaining 10% patients only symptomatic treatment was given due to multiple systemic disorders.

Analysis of grades (G) of tumour revealed G1 in 06 patients (11.11%), G2 in 39 patients (72.22%) and G3 in 9 patients (16.66%). Regarding staging of growth, 38 patients (70.3%) belonged to Ta-T1 while 16 patients (29.6%) belonged to stage T2. In follow up after three months only, 70% patients came back to the department for check up on cystoscopy, out of them 31.2% patients were declared disease free. In 38.8% patients recurrence were seen on cystoscopy and 30% patients did not come back to department on due dates for check up on cystoscopy.

Patients in which bladder growth was detected T2 on histopathology report advised them radical cystectomy but patients refused due to some socio economical problems and age factors.

DISCUSSION

This study analyzed the epidemiologic feature of 54 patients with bladder cancer during a period of 3 year in Sheikh Zayed Hospital, Rahim Yar Khan. Median age of this group was 65 years. In some researches in Pakistan reported mean age was 55.5 years.⁸ Worldwide the male to female ratio in the incidence of bladder cancer is 3.3:1.0 however, this ratio varies around the world and has been reported as 1.1:1.0 in Eastern Africa, 2.1:1 in South Africa, 5:1 in Northern Africa and 5.1:1.0 in several areas of Southern Europe.^{7,9}

Cigarette smoking is the most common risk factor for bladder cancer. Recently, several epidemiologic studies and reviews have shown that cigarette smoking significantly increases the risk of this malignancy.^{8,10,7,11}

In our sample 90% had a positive history of tobacco use (cigarette smoker, snuff and water pipe smokers). In 10% whose age was less than 30 years no risk factor has been found. Some studies in Iran have found that opium consumption can increase bladder cancer.^{12,13}

Haematuria was the presenting symptom in 85-90% of these patients. This symptom can be macro or microscopic and intermittent or constant.¹⁴ There was a history of haematuria in 90% in our patients. In our study, 90.7% of the cases had transitional cell carcinoma, 4.7% adenocarcinoma, 1.8%, squamous cell carcinoma. In previous studies transitional cell carcinoma was seen 95-98% of all bladder cancer patients in Iran.¹⁵

In Pakistan transitional cell carcinoma has been reported among 85% among bladder cancer patients.^{8,9} Although in our study women had high grade carcinomas significantly more frequent than men. Although treatment modalities are based on tumor stage and grade. Transurethral resection of bladder tumor is the primary treatment of all bladder cancer patients. This operation was sometime followed by intravesical chemotherapy, radio therapy and partial or total cystoectomy.

In our study, 70% patients were treated with transurethral resection of bladder tumor with chemotherapy or immunotherapy, 20% patients were treated with radiotherapy, 10% patients were treated symptomatically due to multiple systemic

disorders. In our setup partial or total cystectomy was not done. In this study 38.8% of the patients have recurrence, previous study reported recurrence rate of 34-41.7%.^{5,15} Recurrence was seen mostly in patients with high grade tumor. Surveillance strategies for bladder cancer recurrence are based on the diagnostic combination of cystoscopy and urinary cytology.

Our study was retrospective, some data was not available so we could not access tumor staging, despite this limitation, we were able to evaluate the overall picture in our setup.

CONCLUSION

Our study showed that Bladder malignancy was more frequent in elderly male population and was of high tumorgrade. Painless hematuria was main presenting feature and transitional cell carcinoma was the most predominant histopathological type. Cigarette somking was the main risk factor. There is a need for more epidemiological studies to be conducted in our region and for development of preventive measures.

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