



RETROSPECTIVE ANALYSIS OF URETERIAL TUMORS DETECTED WITH TRANSURETHRAL RESECTION

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ABSTRACT

Bladder tumors are biologically and chemically hazardous tumors that have high morbidity and mortality rates even though the improvements of diagnosis and treatment in clinical. Ureteral tumors constitute about 90% of all bladder tumors and their biological behaviour vary from benign lesions to aggressive cancers. In our study 238 bladder biopsy material taken during transureteral resection were analysed retrospectively through the database of İstanbul Ekin Pathology Laboratory between January 2009 and April 2015. A total of 238 bladder biopsy material 156 of was the bladder tumor cases, 121 (%77.6) of male, 35 (%22.4) of were female patients. The average age of these tumor cases was 63.68 ± 12.14 and ranged from 26 to 89. The 156 tumor cases were consisted of; 6 carcinoma in situ, 2 papilloma, 2 low malignity potential papillary neoplasia, 81 low grade papillary carcinoma and 65 high grade papillary carcinoma. We observed that urothelial papilloma and low malignant potential papillary carcinoma rates are lower and the percentage of low grade papillary carcinoma is higher than similar studies. Unlikely the other studies, the high grade papillary ureteral carcinoma were found in further ages when compared to low grade papillary ureteral carcinoma. We recommend to keep in mind that malignant tumors of ureterium can be seen in all age groups and gender.

INTRODUCTION

Bladder tumors are biologically and chemically hazardous tumors that have high morbidity and mortality rates even though the improvements of diagnosis and treatment in clinical. 95% of bladder tumors are epithelial and the rest of are derived from mesenchymal origin. Although most of the epithelial tumors consists of urethelial cells; squamosis and glandular tumors can also be seen [1]. Ureteral tumors constitute about 90% of all bladder tumors and their biological behaviour vary from benign lesions to aggressive cancers [2-5]. The classification of ureteral tumors was first created in International Society of Urological Pathology Conference in 1998 and was accepted by WHO in 2004 [6].

PATIENTS AND METHODS

238 bladder biopsy material from transurethral resection (TUR) was analysed retrospectively from the database of İstanbul Ekin Pathology Laboratory between January 2009 and April 2015. The demographical properties were examined. Pathological grading was performed with grading system that was accepted by WHO in 2004.

RESULTS

In our study 164 (%68.9) of 238 patients were male and 74 (%31.1) of female. Ages ranged from 17 to 89 and average age was 60.16 ± 14.18 . 156 of them were bladder tumor cases, 121 (%77.6) of male, 35 (% 22.4) female patients. The average age was 63.68 ± 12.14 and ages ranged from 26 to 89. 156 patients of tumor cases were consisted of 6 carcinoma in situ, 2 papilloma, 2 low



malignancy potential papillary neoplasia, 81 low grade papillary carcinoma and 65 high grade papillary carcinoma.

Considering only neoplastic cases, carcinoma in situ was in (3.9%) of, papilloma in (1.3%) of, low malignancy potential papillary neoplasia in (1.3%) of, low grade papillary carcinoma in (51.9%) of and high grade papillary carcinoma in (41.6%) of the patients.

Four male and two female patients had carcinoma in situ, aging between 55-76 with a mean age of 63.6. Two patients diagnosed as urethelial papilloma were 23 and 46 years old. Two male patients with the age of 43 and 57 had low malignancy potential papillary neoplasia. The mean age of low grade papillary ureteral carcinoma was 61.57 ± 12.8 and age ranged from 26 to 89. Average age of the patients with high grade papillary ureteral carcinoma was 67.75 ± 10.1 and age ranged from 45 to 89. When all neoplasia cases evaluated, the average age was 63.68 ± 12.14 , for male patients 65.192 ± 13.4 , and for female patients 56.50 ± 14.2 years.

DISCUSSION AND CONCLUSION

The patients with bladder cancer were classified through tumor grading and accompanying CIS existence. In our study, the mean age was 63.68 and ages ranged from 26 to 89.

In the study of Yanik *et al* [7] the average age was 63.86 ± 14.85 and ages ranged from 31 to 84. Kefeli *et al* detected the average age as 60.7 and ages ranged from 22 to 92 (6). Gulciftci found that the ages ranged from 33 to 77 and the age average was 60.04 ± 10.14 . In another study made by Aslan and Mammadov, the average age was detected as 58.5 ± 12.1 [8].

Male to female ratio varies 2:1- 4:1 (9) in studies. Aslan and Mammadov; in their study including 329 bladder cancer cases and 42 (12.7%) of were female and 287 (87.3%) of the patients were male (female male ratio 6.8:1) [8]. In the study of Kefeli *et al* consisting 56 patients; 50 of were male, 6 of female. Only 3 (6%) of the 48 patients were female in Gulciftci's study [7]. In the study of Yanik *et al* [9] 26 (85.65%) patients with bladder tumor were male and 3 (6%) of female. In our study 121 (%77.6) patients with bladder tumor were male, 35 (%22.4) patients female.

Kefeli *et al* demonstrated that 6 (10.7%) of the patients were papilloma, 7 (12.5%) of low malignancy potential papillary neoplasia, 19 (33.9%) of low grade papillary carcinoma and 24 (42.85%) of high grade papillary carcinoma. However in the study of Gulciftci *et al*, 7 (12.5%) of 48 patients were papilloma, 16 (33.33%) were low malignancy potential papillary carcinoma, 14 (29.16%) low grade papillary carcinoma and 11 (22.91%) of high grade papillary carcinoma (6,7). Yanik *et al* [10] found that one (1.52%) of the cases was carcinoma in situ, 2 (3.03%) of metastatic cancer, one (1.52%) of papilloma, 2 (3.03%) low malignancy potential papillary neoplasia, 14 (21%) of low grade papillary carcinoma and 9 (13.64%) of high

grade papillary carcinoma. In our study 6 (3.9%) of the cases were carcinoma in situ, 2 (1.3%) of papilloma, 2 (1.3%) of the patients were low malignancy potential papillary neoplasia, 81 (51.9%) of them were low grade papillary carcinoma and 65 (41.6%) of them were high grade papillary carcinoma. When only considering malignant cases the percentage of carcinoma in situ was (3.9%), papilloma (1.3%), low malignancy potential papillary neoplasia (1.3%), low grade papillary carcinoma (51.9%) and high grade papillary carcinoma (41.6%).

In our study two patients diagnosed as urethelial papilloma were 23 and 46 years old. In the study of Yanik *et al* [10] there was only one female patient with ureteral papilloma and she was 31 years old. The youngest patient with low malignancy potential papillary neoplasia was 53, the oldest 77 years old and the average age was 60.0 in the study of Gulciftci [7, 11-13].

Yanik *et al* [10] in their study there was 2 male patients with low malignancy potential papillary neoplasia and their ages were 33 and 62, the average age was 47.50 ± 20.50 . In our study two male patients with ages of 43 and 57 had low malignancy potential papillary neoplasia.

However in our study the youngest patient with low grade ureteral carcinoma was 26 and the oldest was 89, the age average were 61.57.

Yanik *et al* [10] in their study, the youngest patient with low grade ureteral carcinoma was 43 and the oldest 77, the average age was 62.21 ± 9.37 . While the average age of the patients with high grade papillary ureteral carcinoma are younger in other studies (7, 11-13). The average age was 73.44 ± 9.83 and the youngest was 57, the oldest was 84 years old.

Most of the studies in the literature have been supported that advanced bladder cancer in females are more aggressive and medication response is worse. (13,14)

Finally we observed that urothelial papilloma and low malignant potential papillary carcinoma are lower and the percentage of low grade papillary carcinoma was higher than other studies.

The average age of the patients with high grade papillary ureteral carcinoma were younger in other studies [7, 11-13] although older in our study.

We recommend to keep in mind that malignant tumors of ureterium can be seen in all age groups and any gender.

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CONFLICT OF INTEREST:

The authors declare that they have no conflict of interest.

STATEMENT OF HUMAN AND ANIMAL RIGHTS

All procedures performed in human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.



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