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# Age and gender relation in ureterial tumors detected with transurethral resection

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**Abstract:** Bladder tumors are biologically and chemically hazardous tumors that still remains as high morbidity and mortality rates even though the improvements of diagnosis and treatment in clinical field. Ureteral tumors constitutes about 90% of all bladder tumors and their biological behaviour vary from benign lesions to aggressive cancers. In our study 66 diagnosed bladder biopsy and transureteral resection material were analysed retrospectively through the database of pathology department of Iskenderun State Hospital between January 2011 and November 2013. When only the bladder tumor cases were examined, 26 (59.65%) male and 3 (10.35%) female patients were detected. The age average of these tumor cases was  $63.86 \pm 14.84$  and ages were varied from 28-84. The 29 patients of tumor cases were consisted of 1 (1.52%) carcinoma in situ, 2 metastatic cancers, 1 papilloma, 2 low malignancy potential papillary neoplasia, 14 low grade papillary carcinoma and 9 high grade papillary carcinoma. We observed that urothelial papilloma and low malignant potential papillary carcinoma has low rates and the percentage of low grade papillary carcinoma has high rates according to similar studies. Unlikely the other studies, we found that the high grade papillary ureteral carcinoma can be seen in further ages than low grade papillary ureteral carcinoma. In the light of our study, we recommend to keep in mind that malignant tumors of ureterium can be seen in all age groups and gender.

**Keywords:** Bladder Tumors, Age, Gender, TUR

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## 1. Introduction

Bladder tumors are biologically and chemically hazardous tumors that still remains as high morbidity and mortality rates even though the improvements of diagnosis and treatment in clinical field. 95% of bladder tumors are epithelial and the rest are derived from mesenchymal origin. Although most of the epithelial tumors consists from ureterial cells, squamous and glandular tumors can also be seen (Kumar V.2011). Ureteral tumors constitutes about 90% of all bladder tumors and their biological behaviour vary from benign lesions to aggressive cancers (Murphy

WM.1994, Taylor DC.1996, Yörükoğlu K.2006, Eble JN.2007).

The classification of grade process in ureteral tumors was first created in International Society of Urological Pathology Conference in 1998 and was accepted by WHO in 2004 (Kefeli M.2007).

## 2. Patients and Methods

Sixty six diagnosed bladder biopsy and transureteral resection (TUR) material was analysed retrospectively from the database of pathology department of Iskenderun State Hospital between January 2011 and November 2013.

The demographical property and detected findings were examined. Pathological grading was performed with grading system that was accepted by WHO in 2004.

### 3. Results

In our study 49 (74.24 %) of the 66 patients were male and 17 (25.76%) of them was female. Ages were varied from 28 to 84 and age average was detected as  $59.00 \pm 15$ . When only the bladder tumor cases were examined, 26 (59.65%) male and 3 (10.35%) female patients were detected. The age average of these tumor cases was  $63.86 \pm 14.85$  and ages were varied from 31-84. The 29 patients of tumor cases were consisted of 1 carcinoma in situ, 2 metastatic cancers, 1 papilloma, 2 low malignity potential papillary neoplasia, 14 low grade papillary carcinoma and 9 high grade papillary carcinoma. Considering only neoplastic cases, carcinoma in situ was (3.45%), metastatic cancer (6.90%), papilloma (3.45%), low malignity potential papillary neoplasia (6.9%), low grade papillary carcinoma (48.27%) and high grade papillary carcinoma (31.07%)

After the examination of the average age and gender distribution according to subgroups, the patient with carcinoma in situ was 75 years old male. Two patients diagnosed as metastatic cancer were 65 and 84 years old with an average age of  $59.00 \pm 34.64$ . One patient had urethelial papilloma and 31 years old. Two male patients with the age of 33 and 62 had low malignity potential papillary neoplasia and age average were evaluated as  $47.50 \pm 20.50$ . The mean age of low grade papillary ureteral carcinoma were  $62.21 \pm 9.37$ . The youngest patient with low grade papillary ureteral carcinoma was 43 and the oldest was 77. One of these patients was female and 62 years old. The age average of the remaining 13 male patients were  $62.23 \pm 9.75$ . Average age of the patients with high grade papillary ureteral carcinoma were  $73.44 \pm 9.83$  and the youngest patient was 52, oldest patient was 84 years old. One of the patients was female and 80 years old. The rest of the 8 male patients mean age was detected as  $72.67 \pm 10.18$ . When all neoplasia cases were evaluated, the average age was  $63.86 \pm 14.85$ , the age average of only male patients were  $64.57 \pm 14.85$  and for female patients the age average were  $57.66 \pm 24.78$ .

### 4. Discussion

In our study, patients having bladder cancer were classified through tumor grading and accompanying CIS existence. The age average was  $63.86 \pm 14.85$  and ages varied from 31 to 84. Kefeli et al were detected the average age as 60.7 and ages varied from 22 to 92 in their study (Kefeli M .2007). Gulçiftci found that the ages varied from 33 to 77 and the age average was  $60.04 \pm 10.14$  (Gülçiftçi Z.2000). In another study made by Aslan and Mammadov, the age average was detected as  $58.5 \pm 12.1$  (Aslan G.2010). Some studies concluded that male to female ratio was varied

between 2:1- 4:1 (Shariat SF. 2009). Aslan and Mammadov included 329 patients with bladder cancer and 42 (12.7%) of them were female and 287 (87.3%) of the patients were male (female male ratio 6.8:1) (Aslan G.2010). Fifty six patients were included in Kefeli and colleague's study and 50 of them were male, 6 of them were female (Kefeli M .2007). Only 3 (6%) of the 48 patients were female in Gulçiftci's study (Gülçiftçi Z.2000). In our study 26 (85.65%) patients with bladder tumor were male and 3 (6%) patients were female.

Kefeli and friends demonstrated that 6 (10.7%) of the patients were papilloma, 7 (12.5%) of them were low malignity potential papillary neoplasia, 19 (33.9%) of the patients were low grade papillary carcinoma and 24 (42.85%) of them were high grade papillary carcinoma (6). However in the study of Gulçiftci and friends, 7 (12.5%) of the 48 patients were papilloma, 16 (33.33%) of the patients were low malignity potential papillary carcinoma, 14 (29.16%) of them were low grade papillary carcinoma and 11 (22.91%) of the patients were high grade papillary carcinoma (Kefeli M .2007, Gülçiftçi Z.2000). In our study one (1.52%) of the cases was carcinoma in situ, 2 (3.03%) of them were metastatic cancer, one (1.52%) of them was papilloma, 2 (3.03%) of the patients were low malignity potential papillary neoplasia, 14 (21%) of them were low grade papillary carcinoma and 9 (13.64%) of them were high grade papillary carcinoma.

When only considering neoplasia cases the percentage of carcinoma in situ was 3.48%, metastatic cancer was 6.90%, papilloma was 3.45%, low malignity potential papillary neoplasia was 6.90% and high grade papillary carcinoma was 31.07%. In our study there was only one female patient with ureteral papilloma and was 31 years old. The youngest patient with low malignity potential papillary neoplasia was 53, the oldest was 77 years old and the age average were 60.0 in the study of Gulçiftci (Gülçiftçi Z.2000, Scosyrev E.2009, Svatek RS.2009, Datta GD.2006). In our study there were 2 male patients with low malignity potential papillary neoplasia and their ages were 33 and 62, the age average were  $47.50 \pm 20.50$ . However in our study the youngest patient with low grade ureteral carcinoma was 43 and the oldest was 77, the age average were  $62.21 \pm 9.37$ .

While the average age of the patients with high grade papillary ureteral carcinoma were younger in other studies (Scosyrev E.2009, Svatek RS.2009, Datta GD.2006, Gülçiftçi Z.2000) in our study the average age were  $73.44 \pm 9.83$  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 were more aggressive and medication response were worse. (Boorjian SA.2010, Datta GD.2006)

Finally we observed that urothelial papilloma and low malignant potential papillary carcinoma have low rates and the percentage of low grade papillary carcinoma was high rates according to similar studies. The average ages of urothelial papilloma and low malignity potential papillary carcinoma were low and the average of high grade papillary

carcinoma was high according to similar studies. Especially we determined the average age of the patients with high grade papillary ureteral carcinoma were younger in other studies (Scosyrev E.2009, Svatek RS.2009,Datta GD.2006, Gülçiftçi Z.2000) in our study the average age was older .

In the light of our study, we recommend to keep in mind malignant tumors of ureterium can be seen in all age groups and gender.

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