

## **Pattern of failure in patients with non-metastatic renal pelvis transitional cell carcinoma: A single center experience in Alexandria, Egypt**

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**G**lobally, renal pelvis transitional cell carcinoma (RPTCC) is rare. In addition, there is a scarcity of information on the pattern of failure from the low and middle-income countries' patients, posing an unmet need. The aim of this retrospective study was to identify the patterns of failure and prognostic factors of survival outcomes in non-metastatic RPTCC. The medical files of all patients with non-metastatic RPTCC who were treated in Alexandria Main University Hospital between January 2007 and December 2017 were reviewed. The clinicopathologic characteristics and treatment outcome data was collected and analyzed using univariate and multivariate analyses. Thirty-six patients were included in the final analysis. The mean age at diagnosis was 60 years (SD  $\pm$  9.79). The median tumor size was 7cm (6.0-8.75 cm). High tumor grade and lymphovascular invasions (LVI) were observed in 63.9% and 61.1% of tumors, respectively. About half of patients (47.2%) of the patients developed treatment failures including (13.9%) local recurrence and (33.3%) distant recurrence. Lung (22.2%) was the most common site of distant failure. The 5-year local failure-free survival (LFFS) was 71%, while the distant failure-free survival (DFFS) was 60.3%. The 5-years overall survival (OS) was 82.5%. In multivariate analysis, the tumor size was an independent predictive factor for LFFS, DFFS and OS. The tumor size ( $p = 0.03$ ) and LVI ( $p = 0.01$ ) were significant prognostic factors for DFFS in multivariate analysis. Renal pelvis transitional cell carcinoma is very aggressive rare tumor which should be further explored in future research. The tumor size and grade are independent factors for survival outcomes.