

## RISK FACTORS FOR RECURRENCE OF RENAL CELL CARCINOMA AFTER PARTIAL OR TOTAL NEPHRECTOMY

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**Objectives.** Background. Renal cell carcinoma (RCC) is the 10<sup>th</sup> most common cancer worldwide and accounts for 2% global cancer diagnoses. Although overall 5 year survival rate is high – 76%, treatment of RCC recurrence is challenging. After primary treatment RCC recurrence rate can reach 2–30%.

**Materials and Methods.** Aim. The aim of the study was to evaluate RCC recurrence rate after operative treatment and to distinguish recurrence risk factors.

**Methods.** In the retrospective study overall, 251 patients were included, average age was 65, median 66, approximate 3:2 male to female ratio. RCC patients were enrolled who underwent surgical treatment in Pauls Stradiņš Clinical University Hospital from April 2018 to April 2022. Data were gathered about the tumour stage, grade and histological type (clear cell (ccRCC), papillary (pRCC) and chromophobe (chRCC) carcinoma). Follow up radiologic examinations were interpreted to evaluate renal cancer recurrence status.

**Results.** RCC recurrence was observed in 4% (N = 10). Recurrence rate for ccRCC, pRCC and chRCC was 4.% (N = 7), 5.3% (N = 3), 0% (N = 0) respectively. A statistically significant difference between recurrence rate and higher T stage was detected. The results indicate that advanced T stage ( $x_2 = 49.405$ ;  $p < 0.001$ ) has a relation to recurrence. No significant difference was found between histological types, although disease free survival was more favourable for pRCC (16.3 months) compared to ccRCC (9.4 months).

**Conclusions.** Conclusions. The RCC recurrence rate in our study was 4% which is consistent with literature data. The results showed that higher T stage influences the recurrence rate. Timing of recurrence of ccRCC after radical operative treatment tends to be shorter than pRCC.

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