# 36 Immunomodulative role of tonsillectomy in renal cell carcinoma

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Omid S., D'Andrea D. , Garstka N. , Fajkovic H. , Abufaraj M. , Grubmüller B. , Shariat S.F. , Remzi M.

Medical University of Vienna, Dept. of Urology, Vienna, Austria

**Introduction & Objectives:** Evidence that chronic inflammation increases the risk of cancer is accumulating. Tonsillectomy may influence lymphocytes production and modulation, impairing immune surveillance, defense and response to chronic inflammation. While tonsillectomy has been linked with worse outcomes in several malignancies, no reports can be found on renal cell carcinoma (RCC). To fill this gap, we sought to investigate the association of tonsillectomy with survival outcomes in patients with RCC.

**Materials & Methods:** We retrospectively reviewed clinical data from patients treated with partial or radical nephrectomy for clinically non-metastatic RCC. Univariable Cox regression models were built to assess the association of tonsillectomy with recurrence-free survival (RFS), cancer-specific survival (CSS) and overall survival (OS).

**Results:** We identified 428 patients with available data. Of these 69 (16%) had tonsillectomy. Median follow-up for alive patients was 5.9 years (IQR 2.5 – 10.4). We could not observe a difference in clinicopathologic features between the two cohorts, except for patients in the tonsillectomy cohort who were more likely to have multifocal disease (36 [27.1 %] vs 15 [10%], p = 0.01). On univariable Cox regression analysis, tonsillectomy was not associated with RFS (HR 0.96, 95%CI 0.57 – 1.64, p = 0.89), CSS (HR 1.28, 95%CI 0.52 – 3.16, p = 0.58) or OS (HR 1.14, 95%CI 0.71 – 1.82, p = 0.58).

**Conclusions:** Our retrospective analysis did not show an association of tonsillectomy with survival in patients treated with partial or radical nephrectomy for clinically non-metastatic RCC. Future research should focus on the identification of chronic inflammation conditions and/or reduced efficiency of immune function in patients with RCC.