

**HAS THE NEW EDITION OF THE TNM IMPROVED THE LYMPH NODE STAGING FOR RENAL CELL CARCINOMA?**

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**Scopo del lavoro**

The most commonly used staging system of Renal Cell Carcinoma (RCC) is the Tumor-Node-Metastasis system. In the last editions of this classification, lymph node (LN) involvement was defined independently of the number of positive LNs (pN1: one or more positive LNs). Previously, there were pN1 and pN2 subcategories, identifying cases with one or more than one positive LNs, respectively. The aim of this study was to evaluate the prognostic value of lymph node involvement taking into account the number of LN removed and the number of positive lymph nodes.

**Materiali e metodi**

All the pathological reports of the radical nephrectomies for RCC performed in three Tertiary Care Centers from November 1983 to December 2012, were reviewed. For each patient complete pathological data, extension of lymphadenectomy, number of LNs removed, number of positive LNs and ratio between number of positive LNs and total number of LNs (LN density) were recorded. The pathological stage was determined according to the TNM seventh edition. Kaplan-Meier method and log-rank test were used to calculate the cause-specific survival rate and to compare the survival curves, respectively. Cox proportional hazards regression model was used to determine the variables that were independently correlated with cancer death.

**Risultati**

There were 2884 patients. Lymphadenectomy was performed in 1550 cases. The median age of these patients was 60.0 years (range 21-88). Median follow period was 57.6 months. The rate of positive LNs was 13.3% (207/1550). Distant metastases at diagnosis were present in 96 out of 207 cases. The average number of LNs removed was 7 (range 1-58). The median number of LNs involved was 3 (range 1-23). Limited (hilar) lymphadenectomy was performed in 552 patients. The 5-year cause-specific survival rate of pN+ cases was 19.5%. There was no difference in 5-year cause-specific survival between patients with 1 positive lymph node and patients with more than 1 positive LN (23% vs 18%;  $p=0.1$ ). A significant difference was only found in patients with distant metastases at diagnosis (16.5% vs 0%). Similar results were obtained limiting the analysis to the patients submitted to complete lymphadenectomy. A number of LNs involved greater than 4 better stratify the prognosis of cases with positive LNs, except in M0 patients. Lymph node density had no prognostic impact. In patients with nodal involvement, the multivariable analysis showed an independent prognostic value for pT, M and pN1-pN2 (HR 1.57; 95% IC 1.06-2.31;  $p=0.01$ ) but not for the Fuhrman Grade.

**Discussione**

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**Conclusioni**

This study demonstrated that in RCC the number of lymph nodes involved correlates with prognosis, especially in patients with distant metastases. According to our data, the actual classification of nodal involvement should be modified.

**IMPACT OF GENDER IN NEPHRON SAVING SURGERY: COMPARISON OF PEROPERATIVE OUTCOMES FROM THE DEFINITIVE RESULTS OF RECORD PROJECT**

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**Aim of the study**

The aim of this study is to analyse gender in nephron sparing surgery (NSS) comparing males vs females in terms of epidemiological and clinical features in a multicentre Italian dataset (RECORD Project).

**Materials and methods**

Overall, 1055 patients treated with nephron sparing surgery (NSS) between January 2009 and December 2012 were evaluated. A comparison of gender on pre-, intra- and post-operative variables was performed.

**Results**

Overall, 630 males and 346 females were analysed. No significant difference was found between males and females in age (analysed as continuous and nominal (

**Discussion**

It seems that NSS in males presents a higher difficulty (higher EBL, intraoperative time and intraoperative complication). A possible explanation can be higher BMI and surgical indication, but this result should be further confirmed by a matched pair comparison. Females present higher rate of benign tumours, as described in literature. Males present a slightly higher clear cell RCC rate with higher Fuhrman grade.

**Conclusions**

To our knowledge this is the main Italian analysis regarding epidemiologic and clinical features in NSS related to gender.