

Nephron Sparing Surgery and Nephrectomy of T1 Tumours in Sweden 2005-2009

Introduction and Objective: Radical nephrectomy (RN) in renal cell carcinoma (RCC) is associated with an increased risk of chronic kidney disease, which may have an impact on overall survival, compared with nephron sparing surgery (NSS). Based on this NSS is recommended by EAU and AUA as standard treatment in tumours up to 7 cm (T1). It is not known to what extent these guidelines are followed.

Materials and Methods: The Swedish Kidney Cancer Registry is a population-based registry containing information on RCCs at diagnosis, covering 99% of all RCCs in Sweden. In this study, patients with a tumour diameter up to 7 cm, diagnosed 2005-2009, were included. Of 2 802 tumours 1 213 were T1a and 1 019 T1b. Sixty percent were men and 40% women.

Results: Eighty-seven percent were treated surgically: 79% had a nephrectomy, 18% NSS and 3% ablative therapy. Eighteen percent of the T1a-tumours and 16% of the T1b tumours were operated laparoscopically. Thirty-two percent of patients with T1a-tumour had NSS and 7% of the patients with T1b-tumours. At the university hospitals, 51% of T1a-tumours had NSS, but only 19% at other hospitals. There was a significant variation among university hospitals, with one hospital only performing 12% NSS while others did NSS in 80% of the patients with T1a-tumour. The same variation was seen in T1b-tumours. There were also notable regional differences in the treatment of T1a-tumours with 10% up to 80% NSS for the patients living in different counties. NSS was mainly performed by open surgery. The University hospital with the lowest frequency of NSS had a high frequency of laparoscopic nephrectomies (LN). Younger patients had a bigger chance of getting NSS compared to older patients.

Conclusions: NSS was still underutilized in many hospitals and the patient's chance of being offered NSS varied greatly according to their place of residence and whether they were treated at a university hospital or a county hospital. There was even a notable difference between the university hospitals. The results also suggest that the introduction of LN could be an obstacle to NSS.