Can the results of the minimally invasive partial nephrectomies be predicted using the R.E.N.A.L. Score in a center of Argentina?

Abstract in English, Spanish

Introduction: Renal cell carcinoma (RCC) in stage T1a has partial nephrectomy (PN) as asurgical indication. The RENAL Score (RS) is useful for the prediction of post-surgical complications (PC) and recurrence.

Objective: To evaluate patients who have undergone a PN and to identify if there is an association between the RS and the achievement of the MIC.

Patients and methods: Prospective and observational cohort that includes laparoscopic PN from March 2017 to July 2018. The RS was calculated in the pre-surgicalCT scan iv contrast.

Results: 33 patients were included, 69.7% were classified as low complexity RS (LRS), 27.3% medium complexity RS (MRS) and 3% high complexity RS. The meansurgical time was 146.82 min (SD 34.93), the mean warm ischemia time was 16.21 min (SD 10.29) and the estimated blood loss was 280.61 ml (SD 217.6). We found a difference in the surgical time between the means of LRS and MRS (p=0.0150), but not in the time of warm ischemia and estimated blood loss (p=0.1896 and p=0.0618). The MIC was reached in 66.6% of the sample. The mean follow-up was 10.32 months (range18-2 months), with no tumor relapse or metastasis.

Conclusion: The laparoscopic NP in our center hasa MIC scope similar to international series, without having direct association with the RS.

Keywords: Kidney Neoplasms; Laparoscopy; Laparoscopía; Nefrectomía; Neoplasias renales; Nephrectomy.

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