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I. INTRODUCTION

Severe reduction in renal functional mass may predispose to progressive renal dysfunction. Radical nephrectomy (Nx) is an interesting human model to elucidate this issue so the aim of this study was to compare the effect of the steady state renal function after Nx on midterm renal survival after Nx in a cohort of individuals recruited from two of the largest teaching hospitals in Buenos Aires.

I.I. MATERIALS

82 consecutive adult individuals who had undergone Nx and were newly referred to one of the 2 recruiting centers and had a follow up time of at least 6 months were included in this study. Clinical and biochemical characteristics were recorded at baseline as well as on each consecutive visit. Serum creatinine (Scr) was measured before as well as at steady state post Nx and at each follow-up visit and the estimated glomerular filtration rate (eGFR) was also calculated. The main outcome measure was the doubling of serum creatinine (DSC).

I.I.I. METHODS

Univariate and multivariate logistic regression analysis were carried out to determine if DSC was a dependent variable on the following potential covariates: gender, age, hypertension, diabetes, cardiovascular disease (CVD), post Nx eGFR < 60 mL/min.

The odds ratios (OR) with the appropriate two-sided 95 % confidence interval (CI) were reported. All tests were two sided and a value of $p < 0.05$ was considered statistically significant. The analysis was conducted with SPSS 22.0 statistical software.

I.V. RESULTS

Table 1. General description variables

| VARIABLES | TOTAL (n=82) | DSC (+) (n= 21) | DSC (-) (n= 61) |
|------------------------------------|--------------|-----------------|-----------------|
| AGE (MEDIA, DS) | 56,6 (13.8) | 48.7 (3.8) | 57.7 (4.1) |
| GENDER MALE (N, %) | 36 (43.9) | 8 (38) | 28 (46) |
| CAUSE NX (N,%) CA | 44 (53.7) | 12 (57) | 32 (52.4) |
| STEADY STATE SCR mg/dl (MEDIA, DS) | 1.35 (0.6) | 1.38 (0.18) | 1.02 (0.1) |
| LAST SCR mg/dl (MEDIA, DS) | 1.58 (1.2) | 2.95 (0.4) | 1.84 (0.2) |
| BASE LINE eGFR ML/MIN (MEDIA, DS) | 66.3 (23.3) | 79.4 (24) | 62.3 (7.1) |
| POST NX eGFR < 60 ml/min (n,%) | 36 (44) | 14 (39) | 22 (61) |
| HTA (N,%) | 50 (61) | 11 (52) | 39 (63.9) |
| DBT (N,%) | 25 (30.5) | 10 (47.6) | 15 (24.5) |
| DLP (N,%) | 49 (59.8) | 17 (81) | 32 (52.4) |
| CVD (N,%) | 14 (17.1) | 8 (38) | 6 (9.8) |

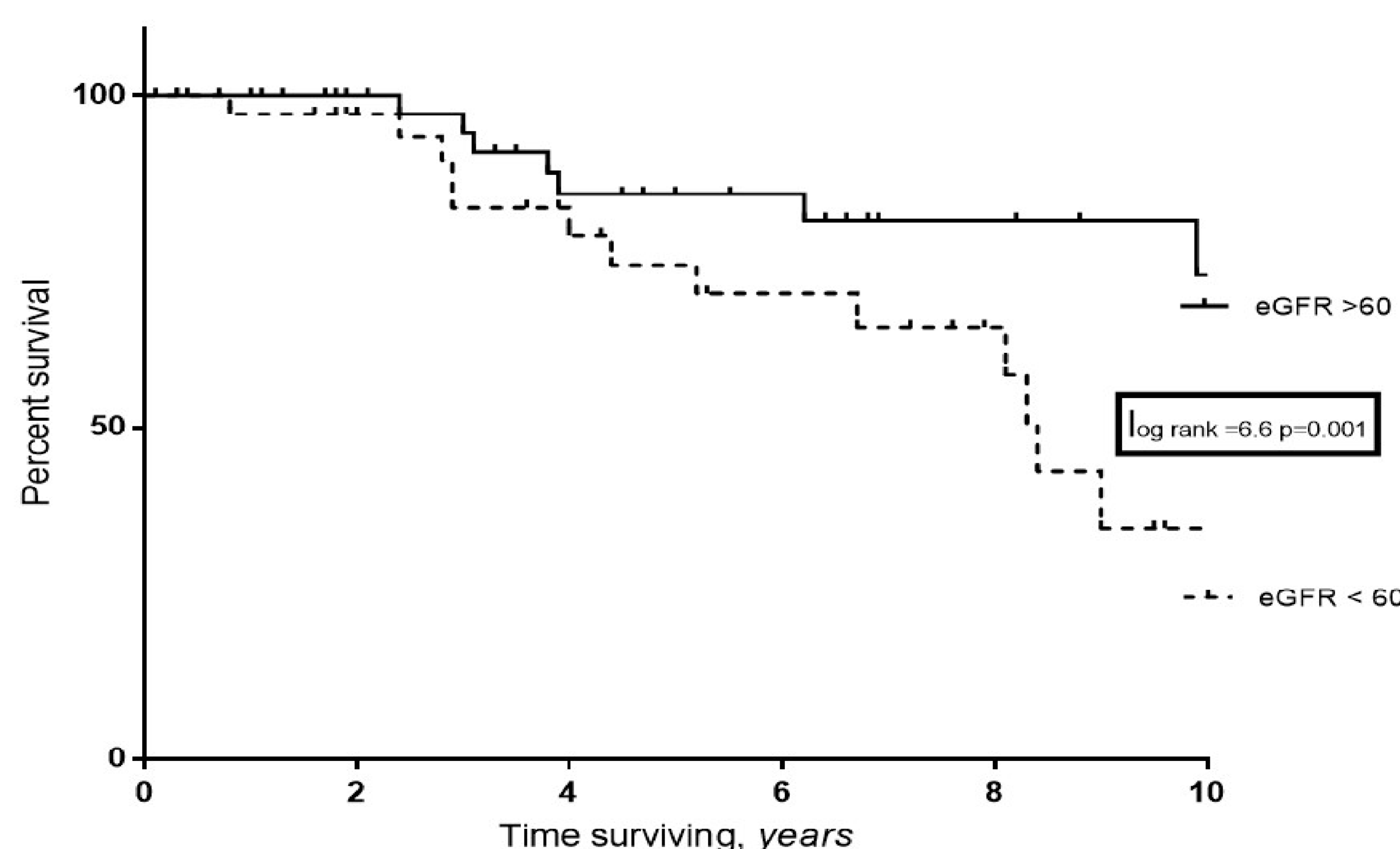
Table 2. Univariate analysis of the study

| VARIABLES | HR | IC 95% | p |
|-----------|------|------------|-------|
| AGE | 1.01 | 0.9 - 1 | 0.46 |
| HTA | 0.6 | 0.2 - 1.6 | 0.35 |
| DBT | 2.7 | 0.9 - 7.8 | 0.05 |
| DLP | 3.8 | 1.1 - 12.7 | 0.028 |
| CVD | 5.6 | 1.6 - 19 | 0.005 |
| CKD | 3.5 | 1.2 - 10.1 | 0.018 |

Table 3. Multivariate analysis of the study

| | OR | 95% CI | p |
|------------------|-------|--------------|-------|
| DBT | 2.33 | 0.67 - 8.08 | NS |
| DLP | 1.45 | 0.35 - 6.13 | NS |
| CVD | 5.81 | 1.27 - 26.51 | 0.023 |
| eGFR < 60 mL/min | 3.52 | 1.02 - 12.13 | 0.049 |
| Age | 0.982 | 0.94 - 1.03 | NS |

Figure 1. Kaplan Meyer survival graph



V. CONCLUSIONS

Estimated GFR < 60 ml/min and the presence of CVD are the major risk factors for progression of CKD after Nephrectomy. Large studies with longer follow-up are needed to evaluate long-term renal function after Nephrectomy.