

Abstract

Although partial nephrectomy (PN) is preferred over radical nephrectomy (RN) for preserving renal function in patients with cT1 renal cancer, its impact on cardiovascular events (CVe) remains controversial. This study aimed to compare PN and RN in regard to the occurrence of CVe, including cerebrovascular events and exacerbation of hypertension (HT). We retrospectively analyzed 418 consecutive patients who underwent PN or RN for cT1 renal cancer. Propensity score-matching analysis was used to adjust for imbalances between patients who underwent PN and RN, leaving 102 patients in each group. The 5-year probability of cumulative CVe incidence was 6% in the PN group and 12% in the RN group ($p=0.03$), with a median follow-up of 73.5 months. The statistical significance was retained after propensity score matching for patients without preoperative proteinuria ($p=0.03$). For all CVe including cerebrovascular events and exacerbation of HT analyzed, PN provided a lower probability of occurrence than RN in patients with small renal cancers.

Keywords: chronic kidney disease, hypertension, nephrectomy, proteinuria