Letter

The Authors Reply: Renal Cell Carcinoma in Kidney Transplant Recipients and Dialysis Patients

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To the editor:

A limitation of our article is the absence of a control group and that this was not a prospective study. Our study was an insufficient randomized controlled cohort trial for acquired cystic kidney disease (ACKD).

Our study would be better accepted if it was designed in a prospective manner, which would contain follow-up data for about 7,000 patients with end-stage renal disease (ESRD) for 14 years, with separate comparisons of the transplant group, dialysis-only group, and renal cancer patient group who underwent nephrectomy for ACKD.

Because the study was performed in a retrospective manner, there was no strict protocol for imaging study. Furthermore, the diagnosis of ACKD in the native kidney was usually made by associated symptoms. This study made comparisons between the dialysis group and the transplanted group, who had undergone nephrectomy, retrospectively. Kojima et al. [1] observed that the incidence of renal cell carcinoma (RCC) in the native kidney was high in transplant recipients and reported that the incidence rate was high in dialysis patients. It was shown that 44 (1.68%) of 2,624 ESRD patients followed up during dialysis had developed RCC an average of 11.2 years after dialysis, and 36 of these cases (81.8%) were associated with ACKD. A positive correlation with the incidence rate of RCC was also found among transplant recipients. In 2007, Ianhez et al. [2] reported that 10 of 1375 patients developed RCC of the native kidney an average of 8.4 years after the renal replacement therapy, and all the RCC cases were associated with ACKD.

In 1990, Matson and Cohen [3] investigated ACKD development and its correlation with RCC among ESRD patients. They demonstrated that ACKD was closely correlated with the duration of renal replacement therapy but not with the type of dialysis that was performed. Many studies on transplantation and ACKD have also reported

that ACKD is observed more frequently, and the incidence rate of RCC is higher, in a kidney transplantation group than in a control group. Heinz-Peer et al. [4] analyzed 96 patients with ACKD detected by ultrasonography out of 385 renal transplant recipients in 1995 and found that the incidence of ACKD was higher with longer duration times of dialysis before kidney transplantation in older subjects and in males.

The presence of ACKD was related to the occurrence of renal cancer, and the longer the duration of dialysis, the more likely the patient was to acquire ACKD. Only a few studies have been published regarding how renal transplantation itself affects ACKD, and yet, there is no definite answer as to the effects of renal transplantation on RCC.

Our reports show that the frequency of ACKD was lower in the transplanted patient group than in the dialysis group, which still requires further explanation concerning the pathogenesis.

Our institution follows the protocol for ESRD patients to undergo an annual ultrasonogram. This protocol is based on the results of this study and its main intent is to detect ACKD patients earlier. Therefore, we perform annual ultrasonograms for both dialysis patients and kidney transplantation patients. In the future, we hope that these approaches will contribute to the research and treatment in this field.

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