Efficacy of lymphatic sealing using the LigaSure in kidney transplantation

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Background: Iliac vessel lymphatic ligation is extremely important, as it is associated with the occurrence of lymphocele in kidney transplantation. Conventional silk tie ligation is mainly used in lymphatic ligation; however, the LigaSure (vessel-sealing device) is also effective for lymphatic ligation. This study aimed to evaluate the efficacy of lymphatic sealing using the LigaSure in kidney transplantation.

Methods: This retrospective study included patients who underwent kidney transplantation from the prospectively registered database at Seoul St. Mary's Hospital, South Korea, between January 1, 2020 and September 2, 2020. We analyzed comorbidities, primary renal disease, transplant variables, and post-transplantation outcomes.

Results: Seventy-one patients were enrolled in this study. The mean age of the patients was 48 years. The LigaSure and conventional groups comprised of 30 (42%) and 41 (58%) patients, respectively. There were no statistically significant differences in clinical characteristics except hypertension and induction agent. There was no difference in the occurrence of lymphoceles, postoperative day 1 ($P=0.810$) and day 7 ($P=0.798$) drain volume and drain removal length ($P=0.947$) between the two groups during the observation period was observed.

Conclusions: The results of our study show that LigaSure was comparable with conventional lymphatic ligation. There was no difference in the postoperative outcomes. Therefore, LigaSure-based iliac lymphatic ligation can be safely used in kidney transplantation.

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