

The experience of 1100 cases of hand assisted laparoscopic donor nephrectomy for living donor kidney transplantation

Takahisa Hiramitsu, Tomoki Himeno, Yuki Hasegawa, Kenta Futamura, Manabu Okada, Toshihiro Ichimori, Shunji Narumi, Yoshihiko Watarai

Introduction

Due to the extreme shortage of the cadaveric donors for kidney transplantation, the number of living donor kidney transplantation (LDKT) is increasing. To lessen the burden of the living kidney donors (LKD), endoscopic donor nephrectomy is widely performed. The safety of LKDs and graft quality should be secured for the successful LDKT. We investigated the impact of right and left hand assisted laparoscopic donor nephrectomies (HALDNs) on the LKDs.

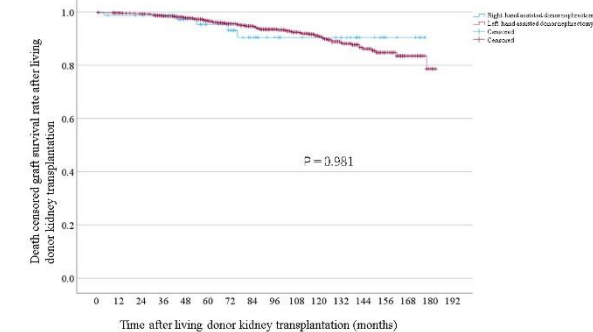
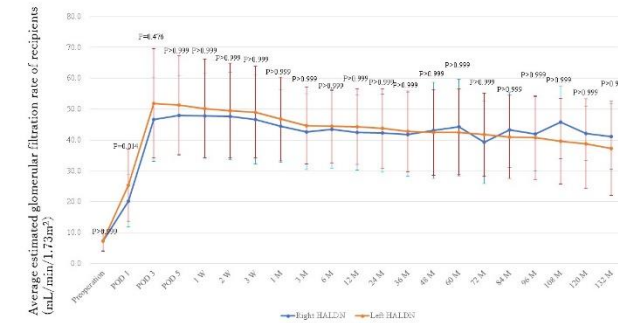
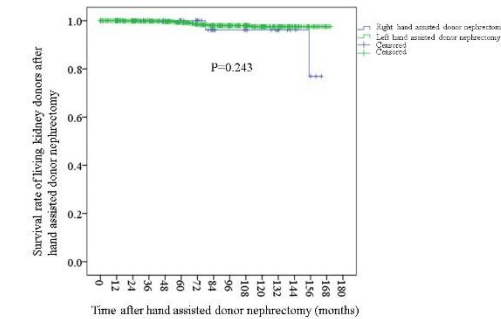
Methods and Materials

Between January 2008 and December 2020, a total of 1157 HALDNs including 81 right and 1076 left HALDNs was performed at our hospital. To compare

These results show that the graft loss risk increases as the predicted ideal eGFR/actual eGFR increases. This implies that when recipients receive actual eGFRs that are lower than those of the predicted ideal eGFR, the graft survival might be worse than that of recipients who can obtain better eGFR than the predicted ideal eGFR. Many factors might prevent recipients from obtaining an ideal eGFR during the perioperative period, including rejection, delayed graft function, infection, and operative complications. (7,36,37) Specifically, to improve long-term graft survival, obtaining an ideal eGFR during the perioperative period by avoiding rejection, delayed graft function, infection, and operative complications might be crucial.

Results

Significant difference was not identified in the operative duration, blood loss, adverse events, postoperative eGFR of LKDs at any time points after operation (Figure 1), and mortality (P=0.243, Figure 2), except for the significantly shorter warm ischemia time in right HALDN (P<0.001). Perioperative death and end-stage renal disease were not identified in both HALDNs. Postoperative eGFR of recipients were similar at any time points after operation (Figure 3). The graft survival rates were similar in both HALDNs (P=0.981, Figure 4).



Conclusions

The safety and graft quality were similar in right and left HALDNs.

Contact

Takahisa Hiramitsu
Japanese Red Cross Aichi Medical Center Nagoya Daini Hospital
2-9 Myokencho Showaku Nagoya Aichi 466-8650 Japan
thira@nagoya2.jrc.or.jp