

## Right vs Left insertion of peritoneal dialysis catheters in ESRD patients by open surgical technique

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**Background/Aims:** The open surgical technique is a traditional and old method of peritoneal dialysis catheter(PDC) insertion. Left-sided insertion is the same direction as peristalsis, thus reducing the frequency of malposition. However, if surgery is not possible to the left side or suspected adhesion due to previous major surgery, it can be inserted to the right side. In this study, we compared left-side and right-side insertions of peritoneal catheter by surgical technique. **Methods:** We retrospectively compared the right approach for PDC insertion by open surgical technique with the left approach. From June 2013 to September 2016, 69 of the catheters were successfully inserted Rt. side and 79 of catheters were inserted Lt. side. Primary outcome was catheter survival. Secondary outcome were peritonitis free survival and exit site infection free survival. **Results:** The mean( $\pm$ SD) age of patients was  $63 \pm 12$  years, the ratio of male to female is 42.6% vs. 57.4%. Of all patients, 55.1% of patients have diabetes and 70.7% have hypertension. The repositioning operation due to malposition was 2 of 66(3%) in Rt. side insertion(RSI) and 3 of 76(3.8%) in Lt. side insertion(LSI)( $p=0.30$ ). Exit infection was 6 of 66(9.1%) in RSI and 4 of 76(5.1%) in LSI( $p=0.513$ ). Peritonitis was 15 of 66(22.7%) in RSI and 13 of 76(16.5%) in LSI ( $p=0.401$ ). The catheter survival was not statistically significant for RSI compared to LSI( $p=0.126$ ) and exit site infection free survival were not different between two groups( $p=0.432$ )(Fig.1). However, peritonitis free survival of RSI was significantly higher compared to LSI( $p=0.020$ )(Fig.2). **Conclusions:** When the peritoneal dialysis catheter was inserted by open surgical technique, catheter survival was not inferior to the left side insertion on the right side insertion. In addition, peritonitis free survival showed statistically superior results in the right side insertion.

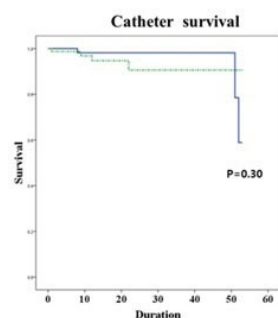


Fig.1 Catheter survival

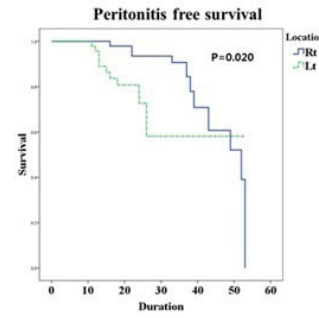


Fig.2 Peritonitis free survival

## Long-term Clinical Outcomes of Allograft Survival in Deceased Donor Kidney Transplantation

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**Background/Aims:** Deceased donor kidney transplantation (DDKT) is still important as a kidney donor because of organ shortage. However, the long-term survival rate is lower than that of living donor kidney transplantation, and it is necessary to understand the factors related to allograft survival in DDKT. We aimed to evaluate long-term clinical outcomes and factors related to the allograft survival in DDKT. **Methods:** The study included 422 patients who received KT from deceased donors at Keimyung university Dongsan medical center between October 1997 and October 2017. We divided KT recipients into 2 groups as follow: non-graft failure and graft failure groups. **Results:** Follow-up duration was  $93.1 \pm 70.8$  months. The number of graft failure group was 101 (23.9%) and non-graft failure group, 321 (76.1%). Death-censored graft survival rates of 1-year, 3-years, 5-years, and 10-years were 98.8%, 95.5%, 90.4%, and 72.7% respectively. Graft failure group showed significantly lower recipient age, lower proportion in use of antithymocyte globulin and tacrolimus and higher incidence of dyslipidemia as a co-morbidity, more human leukocyte antigen (HLA) mismatches, and high panel reactive antibody compared with non-graft failure group. Allograft function at 1 year after KT was significantly lower than non-graft failure group. The incidences of biopsy-proven acute and chronic rejection, viral and bacterial infections as medical complications were significantly higher in the graft failure group compared with non-graft failure group. Serum creatinine levels at 12 months after KT, the incidences of acute and chronic rejection, viral infection, and the number of HLA mismatches were independent factors related with allograft survival in DDKT. **Conclusions:** In our study, long-term allograft survival rate was low in DDKT. The independent factors associate with low allograft survival rate were low allograft function at 12 months after KT, high rejection rate, HLA mismatches number, and viral infection. To improve the allograft survival rate in DDKT, careful monitoring for allograft function during the early period after KT, and the balance of immunologic status should be required.

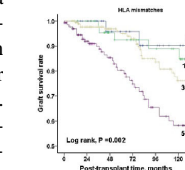


Fig.1 Allograft survival rate according to the number of HLA mismatches in deceased donor kidney transplantation

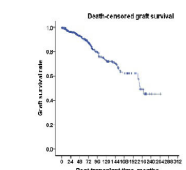


Fig.2 Death-censored graft survival rate in deceased donor kidney transplantation

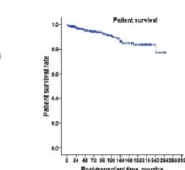


Fig.3 Death-censored graft survival rate in deceased donor kidney transplantation

Variables	Non-graft failure (n=321)	Graft failure (n=101)	P-value
Recipient age at 1 year after KT	47.1(12.1)	44.1(11.1)	<0.001
Sex			
Male	151(47.0%)	51(50.5%)	0.852
Female	170(53.0%)	50(49.5%)	
HLA mismatch			
0	11(3.4%)	1(1.0%)	0.002
1	111(34.6%)	24(23.8%)	
2	141(44.2%)	38(37.6%)	
3	107(33.5%)	30(29.7%)	
4	38(11.9%)	12(11.9%)	
5	12(3.7%)	4(3.9%)	
6	2(0.6%)	1(1.0%)	
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Variables	Non-graft failure (n=321)	Graft failure (n=101)	P-value
Allograft function at 1 year after KT			
Graft survival	310(96.6%)	98(97.0%)	0.852
Graft failure	11(3.4%)	3(2.9%)	
Rejection			
Acute rejection	21(6.6%)	11(10.9%)	0.002
Chronic rejection	12(3.7%)	11(10.9%)	0.002
Total rejection	33(10.3%)	22(21.8%)	
Medical complications after KT			
DM	17(5.3%)	16(15.8%)	0.002
HIV	2(0.6%)	1(1.0%)	0.002
Viral infection	47(14.7%)	56(55.5%)	<0.001
Bacterial infection	46(14.3%)	22(21.8%)	0.004
Tuberculosis	1(0.3%)	1(1.0%)	0.004
Fungal infection	1(0.3%)	1(1.0%)	0.002
Cytomegalovirus (CMV)	10(3.1%)	12(11.9%)	0.002
Cytomegalovirus (CMV)	11(3.4%)	11(10.9%)	0.002
Malaria	1(0.3%)	1(1.0%)	0.002
Total infection	77(23.9%)	108(106.9%)	
Serum creatinine at 12 months after KT			
<1.5 mg/dL	211(65.7%)	20(19.8%)	<0.001
1.5-2.0 mg/dL	111(34.6%)	11(10.9%)	
>2.0 mg/dL	1(0.3%)	1(1.0%)	
Total	323(100.0%)	32(100.0%)	

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Recipient age	47.1(12.1)	44.1(11.1)	<0.001
Recipient male gender	151(47.0%)	51(50.5%)	0.852
Sex			
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