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**Comparison of the Survival Outcomes Between Kidney Transplant and
Dialysis in Patients with Previous Cancer Diagnosis**

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Objectives : Evidence regarding the difference in survival outcomes between kidney transplant and dialysis in cancer patients is lacking.

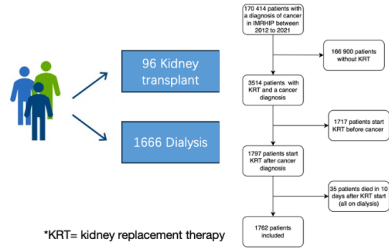
Methods : We conducted a retrospective observation study using the Inner Mongolia Regional Health Information Platform. Patients underwent kidney transplant or dialysis with a preexisting cancer diagnosis during 1/1/2012-31/12/2021 were included. The primary outcome was overall mortality. The secondary outcome was cancer-specific mortality. Propensity score matchings were used.

Results : Among 170 414 patients diagnosed with cancer, 1762 patients started kidney transplant or dialysis. There were 5.45% (n=96) patients using kidney transplants, and 94.55% (n=1666) dialysis. Female was less likely to commence kidney transplant (OR=0.381, 95%CI:0.237-0.602). During a median follow-up of 5.73 years, 438 (24.86%) deaths were recorded. The overall mortality (12.50% vs. 25.57%, p=0.004) and cancer-specific mortality (6.25% vs. 14.89%, p=0.019) were lower in the kidney transplant group. In propensity score matched cohort, kidney transplant was associated with decreased overall mortality (HR=0.366, 95%CI:0.186-0.720) and cancer-specific mortality (HR=0.330, 95%CI:0.128-0.853). The difference in annual medical costs between the transplant and dialysis was not statistically significant (\$10 016.37 vs. \$10 977.18, p=0.982).

Conclusions : Our findings underscoring the urgent need to promote kidney transplants, address donor shortages, and ensure sex-equitable transplant access for kidney failure patients.

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1762 KRT patients with previous cancer history in IMRHIP

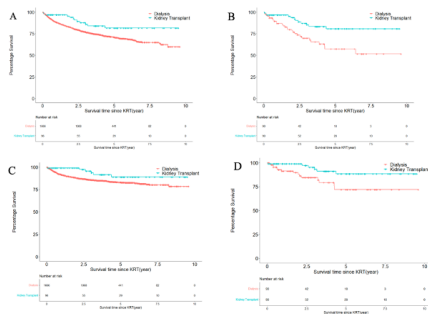


*KRT= kidney replacement therapy

IMRHIP=Inner Mongolia Regional Health Information Platform

Annual Cost, median (IQR), \$	Transplant	Dialysis	P value
Patient No.	90	90	
Total cost	10 016.37 (2 879.82-20 658.49)	10 977.18 (1 763.40-19 373.45)	.982
Own pay	2218.91 (676.36-5 100.34)	1913.18 (416.22-3 432.01)	.108
Insurance covered	7292.88 (1 500.77-14 713.96)	8710.24 (1 187.21-16 037.22)	.601

Outcomes	Prematching Cohort		Postmatching Cohort	
	Transplant (n=90)	Dialysis (n=1448)	Transplant (n=90)	Dialysis (n=90)
Overall mortality				
No. (%)	12 (12.90)	428 (29.57)	12 (13.33)	28 (31.11)
HR(SPLC)	0.476 (0.267-0.849)	Ref	0.366 (0.186-0.726)	Ref
Cancer-specific mortality				
No. (%)	6 (6.25)	248 (14.89)	6 (6.67)	15 (16.67)
HR(SPLC)	0.431 (0.191-0.975)	Ref	0.310 (0.128-0.853)	Ref



(A) Overall survival in prematching cohort;
 (B) Overall survival in postmatching cohort;
 (C) Cancer-specific survival in prematching cohort;
 (D) Cancer-specific survival in postmatching cohort.