



Congress Abstract

Clinical Outcomes of Kidney Transplantation at the Syzganov National Scientific Center of Surgery: A Retrospective Cohort Study

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Proceedings of Central Asian Congress
of Nephrologists with International
Participation, October 9-10, Aktau,
Kazakhstan

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Publishing Group LLP (Astana,
Kazakhstan) on behalf Kazakh Kidney
Foundation.

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ABSTRACT

Introduction: Kidney transplantation has been actively developing in Kazakhstan, data on outcomes remain limited. This study aimed to evaluate recipient characteristics, patient survival, causes of ESKD, and renal graft function after KT.

Methods: We retrospectively analyzed 37 consecutive kidney transplant recipients who underwent KT between January 2020 and July 2025. Body mass index (BMI), etiology of ESKD, donor type, pre-transplant hemodialysis, mortality, and renal graft function were evaluated. Renal graft function was assessed using serial serum creatinine measurements during follow-up. Some recipients were lost to follow-up, which limited assessment of long-term graft function in these patients.

Results: In the available follow-up data, renal function was generally satisfactory and remained stable in most recipients with observations. Graft survival was 86.5%, with graft loss documented in five recipients: three surviving recipients experienced rejection-associated graft loss, and two patients died following rejection. Among the five deaths, two were associated with confirmed COVID-19 infection, one was attributed to cerebral infarction caused by cerebral arterial thrombosis, and two were related to graft rejection. Among the three recipients with rejection-related complications, all experienced adverse effects associated with immunosuppressive therapy, including significant infectious complications.

Discussion: An important consideration is that the study period overlapped with the COVID-19 pandemic. Registry data showed substantially increased infection-related mortality among kidney transplant recipients receiving chronic immunosuppression during 2020, with infection and COVID-19 accounting for a major proportion of excess deaths. Therefore, mortality and survival outcomes should be interpreted in the context of the pandemic, limiting direct comparison with pre-COVID-19 cohorts.

Conclusion: Kidney transplantation at our center demonstrated favorable medium-term outcomes, with improvement in renal function and satisfactory outcomes in most recipients. Overall patient survival was 86.5%, and graft survival was also 86.5%. Continued monitoring of immunosuppression-therapy, complications, and long-term follow-up is important for improving patient and graft outcomes.

Keywords: Kidney Transplantation; Long-Term Renal Graft Function; COVID-19 Infection

Table 1

Variable	Value
Recipients	37
Age, years	35.3 ± 10.8
BMI, kg/m ²	22.7 ± 4.4
Living donors	37 (100%)
Maintenance hemodialysis before KT	34 (91.9%)
Pre-emptive / no dialysis	3 (8.1%)
Alive at end of observation	32 (86.5%)
Deaths during follow-up	5 (13.5%)

Table 2

Cause of ESKD	n	%
Chronic glomerular disease / chronic glomerulonephritis	23	62,2
Hypertensive nephropathy	6	16.2
Mixed diabetic/hypertensive nephropathy	4	10.8
Diabetic nephropathy	1	2.7
Polycystic kidney disease	1	2.7
Congenital/reflux nephropathy	1	2.7
Lupus nephritis	1	2.7