



STATE INSTITUTION "RSSPMCS
NAMED AFTER ACADEMICIAN
V. VAKHIDOV "



**Results of more than 1400
kidney transplants
from a living related donor
performed at the State Institution "RSSPMCS named after
Academician V.Vakhidov", Uzbekistan.**

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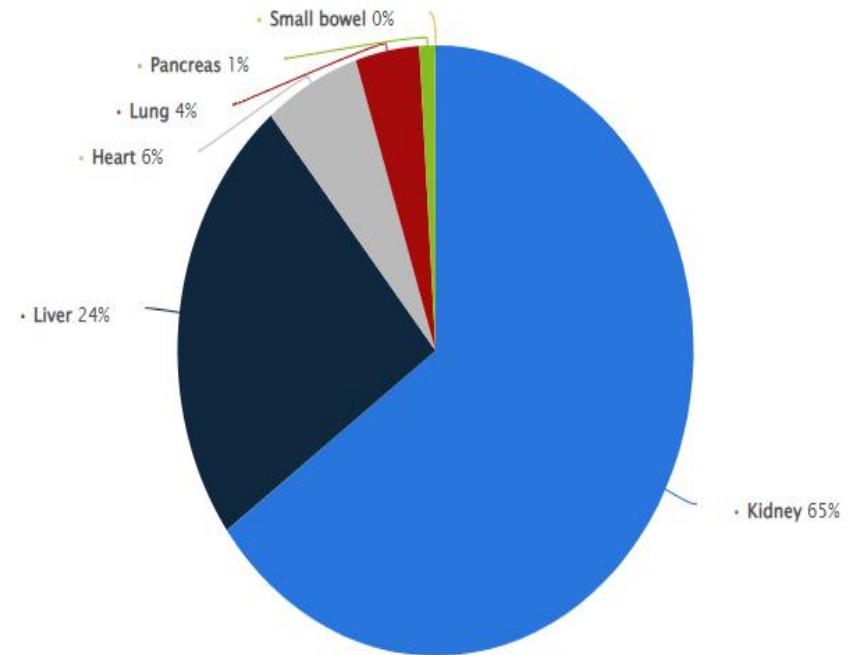
INTRODUCTION.

- ▶ Kidney transplantation (KT) from a living related donor (LRD) is one of effective alternative treatment methods for end-stage chronic renal failure (CRF), which frees the patient from expensive, long-term dialysis procedures that adversely affect the general condition of the body. Today, methods of renal replacement therapy (RRT), such as programmed hemodialysis, as well as kidney transplantation, can radically change the prognosis for patients with uremia. In Uzbekistan, according to the latest data, the incidence of chronic renal failure is approximately more than 700 people per 1 million population (Sabirov M.A.et al.,2021).

ESTIMATED NUMBER OF ORGAN TRANSPLANTATIONS WORLDWIDE IN 2022

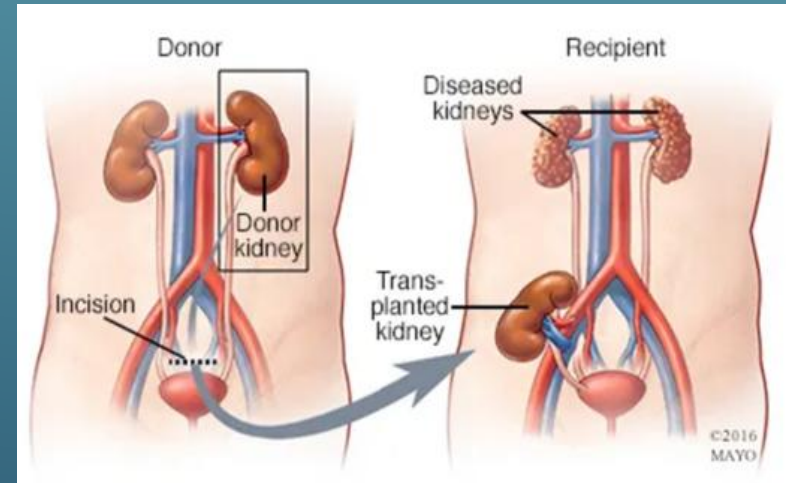
Most frequently transplanted organs worldwide are kidneys, livers, and hearts. However, kidneys account for the majority of organ transplantations with 65 percent of transplantations in 2022 involving kidneys. That year, around 24 percent of transplants were for livers and just six percent were for hearts. The rate of kidney transplants worldwide has increased over the past few years reaching 17.1 transplants per million population in 2022, compared to a rate of 11.1 per million population in 2012. In 2022, there were a total of 102,090 kidney transplants worldwide.

Distribution of organ transplants worldwide in 2022, by organ



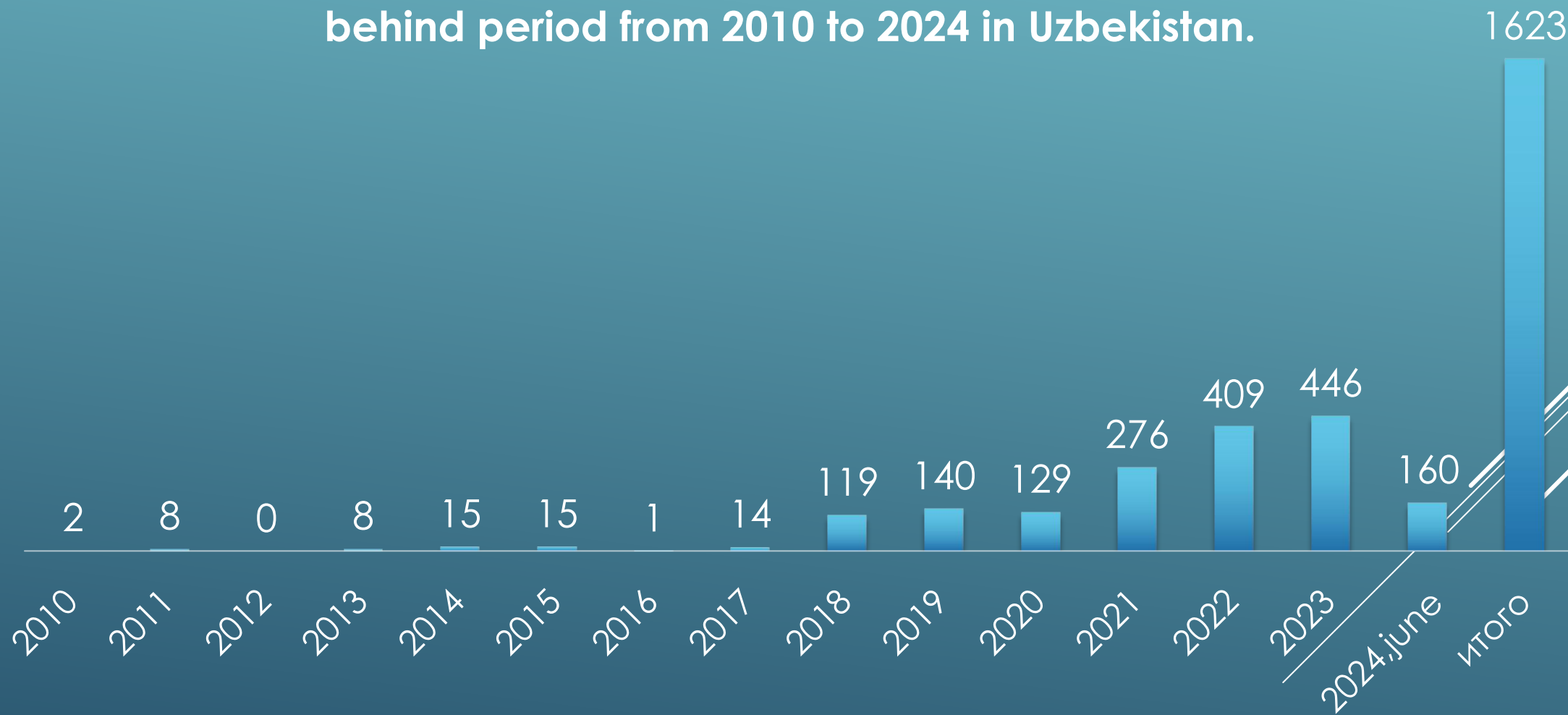
We have an experience of surgical treatment over than 1400 kidney transplantation, that were totally living kidney transplantations.

15 patients underwent ABO incompatible transplantation and also, about 20 patients with high immunological risk: with a positive Cross-match results, high DSA rates and others. 10 patients underwent autotransplantation for occlusion of an early installed stent. The reason was a renal hypertension.



Previously, until 2017, the number of kidney transplants performed in our country did not exceed 15 operations per year, since there wasn't legal basis for this type of surgery.

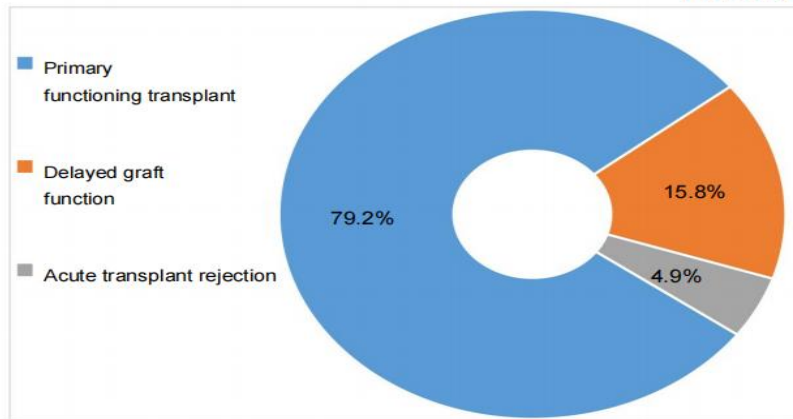
**Number of transplantations performed
behind period from 2010 to 2024 in Uzbekistan.**



ALMOST IN 80% OF PATIENTS IN THE EARLY POSTOPERATIVE PERIOD CRF SYMPTOMS DISAPPEARED. THE LEVEL OF PLASMA CREATININE (REDUCTION TO 120 MKMOL/L OR LESS) ON AVERAGE NORMALIZED BY 4.22 ± 0.9 DAYS. 1 MONTH AFTER TRANSPLANTATION, THIS INDICATOR WAS 0.1 ± 0.02 MMOL/L, AND THE GLOMERULAR FILTRATION RATE WAS 85 ± 5 ML/MIN 5 DAYS AFTER TRANSPLANTATION.

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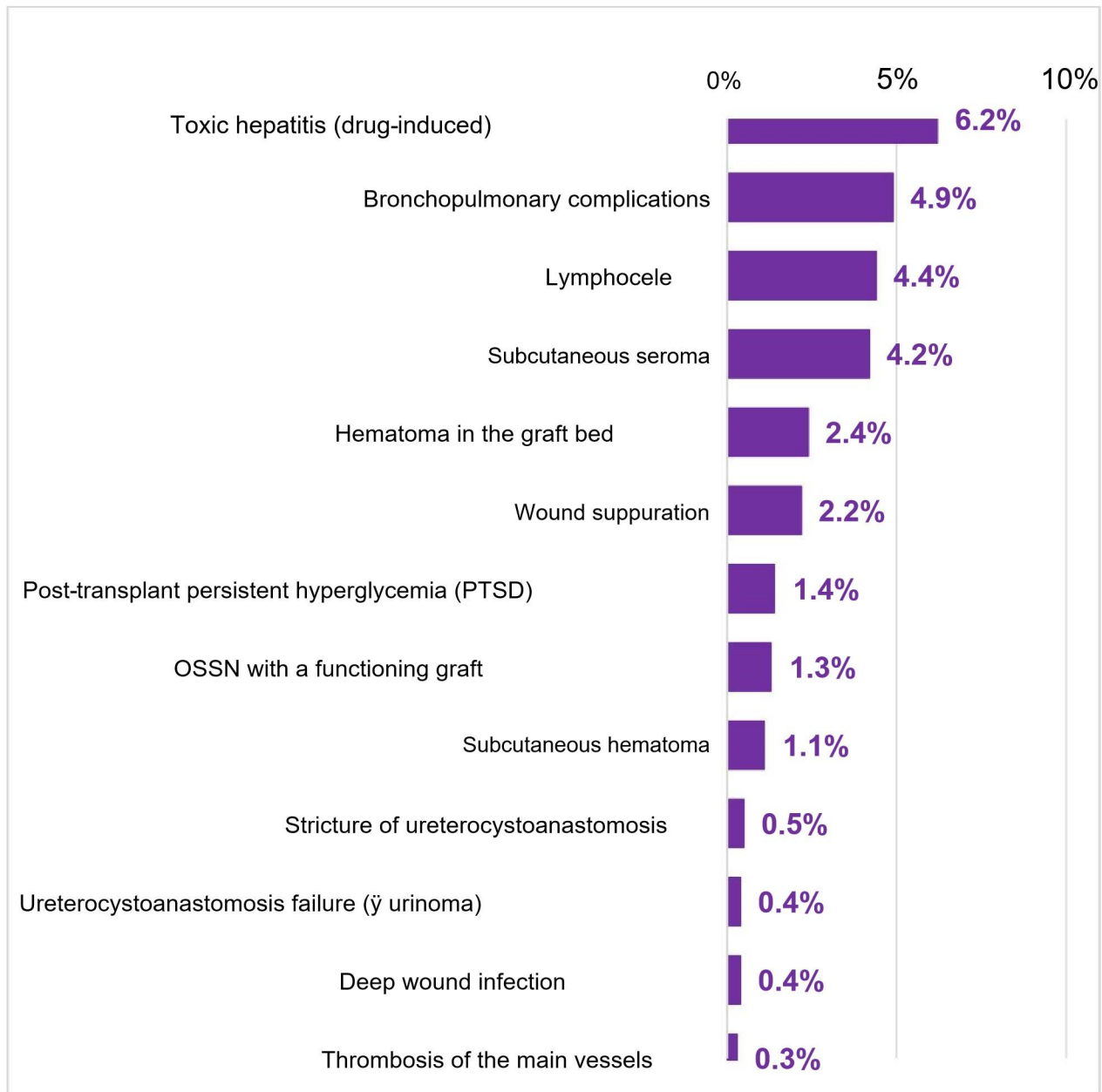
FUNCTIONAL ACTIVITY OF THE GRAFT IN THE EARLY PERIOD AFTER RELATED TRANSPLANTATION



In the vast majority of cases (79.2%; 625 of 789), a primarily functioning graft was observed, in 15.8% (125 of 789) cases, delayed graft function was observed, and 4.9% (39 of 789) recipients had acute graft rejection. Laboratory parameters of azotemia correction dynamics in the early period after related LT are presented below. Already during the first day after the operation, a significant decrease in urea (from 25.4 to 13.4; $t = 12.8$; $p < 0.001$) and creatinine (from 912.4 to 384.6; $t = 17.4$; $p < 0.001$) levels was observed.



COMPLICATIONS OF THE EARLY POSTOPERATIVE PERIOD



In total, 230 (29.2%) complications were diagnosed in the early and immediate period after related LT, including systemic complications such as drug-induced toxic hepatitis (49 of 789; 6.2%) and bronchopulmonary complications (39 of 789; 4.9%), post-transplant persistent hyperglycemia (PTSD) (11 of 789; 1.4%) and OSF with a functioning graft (10 of 789; 1.3%), to varying degrees associated with the side effects of immunosuppressive therapy. Among the early surgical complications, subcutaneous seroma (33 of 789; 4.2%), subcutaneous hematoma (9 of 789; 1.1%), hematoma in the graft bed (19 of 789; 2.4%), and thrombosis of the main vessels, detected in 0.3% (2 of 789) of cases,

can be noted. Wound complications were observed in 2.2% (17 of 789) of cases with wound suppuration and 0.4% (3 of 789) with deep wound infection. Early urological complications included lymphocele (35 of 789; 4.4%), ureterocystoanastomosis stricture (4 of 789; 0.5%), and ureterocystoanastomosis failure, which led to the development of urinoma in 0.4% (3 of 789) of cases.

CONCLUSIONS.

- An extremely favorable option for related kidney transplantation is large families in Uzbekistan, mentality, mutual understanding and close blood relations in the family, which allows you to select the most optimal kidney donor according to the selection criteria.
- Based on our experience, with follow-up periods of up to five years for recipients, the survival rates of transplants and recipients exceeded 90%, however, due to the development of certain complications, the regimens were changed individually for each patient. Unfortunately, in some cases, even fatal outcomes were observed. The authors emphasize the relationship between the adequacy of immunosuppression (i.e., finding drug concentrations in the blood within the target values) and the frequency of rejection. In the long-term period, in patients with an adequate concentration of immunosuppressants, the rejection rate was 15.2%.
- Clinical experience has demonstrated high survival rates of kidney transplants, which suggests that kidney transplantation from living related donors is the most effective method of treating patients with end-stage chronic renal failure. This is due to not only a greater degree of immunological compatibility of the related donor and recipient, but also due to a reduction in the time of cold ischemia, thereby reducing the severity of reperfusion injuries.