



TTS 2024

Results of first 40 cases of living donor liver transplantation performed in Republic of Uzbekistan

Timur Dzhanbekov^{1,2}, Konstantin Semash^{1,2}

National Children's Medical Center, Tashkent, Republic of Uzbekistan

V. Vakhidov Republican Specialized Scientific and Practical Medical Center of Surgery, Tashkent, Uzbekistan

Background

Observation period: October 2021 to December 2023

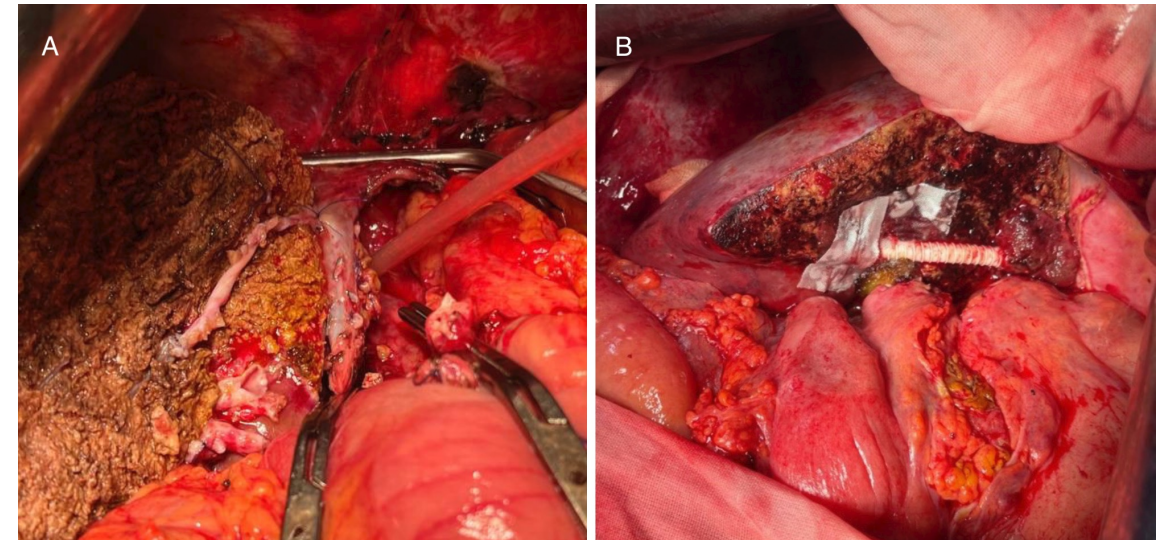
Object: To evaluate the results of the first series of living donor liver transplantation in Uzbekistan and to show that in the conditions of the country liver transplantation is a feasible procedure.

Materials and Methods

Patient baseline demographic and perioperative characteristics

Variables	Value (n=40)
Age	40 (18-56)
Sex, n (%)	
Male	28 (70%)
Female	12 (30%)
Indications for transplant, n (%)	
Viral hepatitis B+D	34 (85%)
Viral hepatitis C	3 (7.5%)
AIH	2 (5%)
Toxic hepatitis	1 (2.5%)
MELD Score	18 (10-30)
Portal hypertension signs	40 (100%)
PVT before LDLT	2 (5%)

Vein outflow reconstruction variations





TTS 2024

Results of first 40 cases of living donor liver transplantation performed in Republic of Uzbekistan

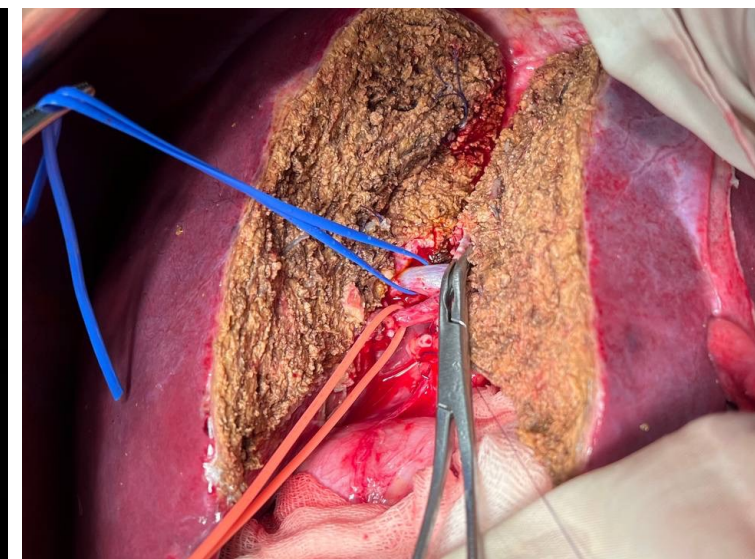
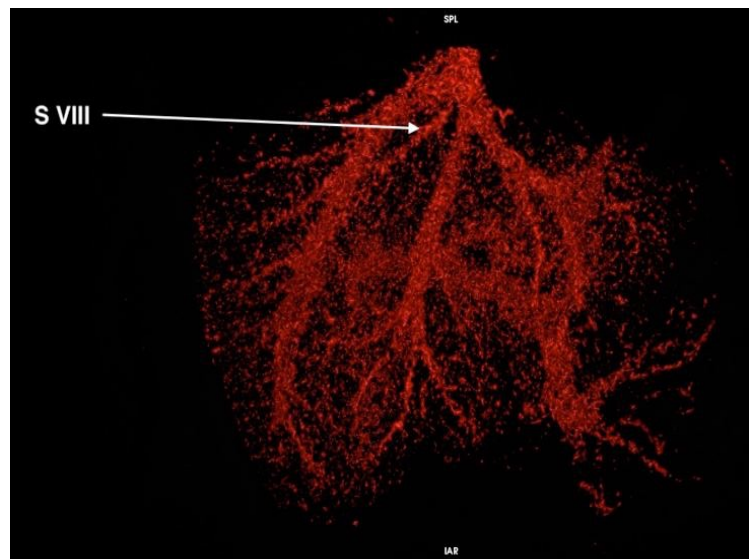
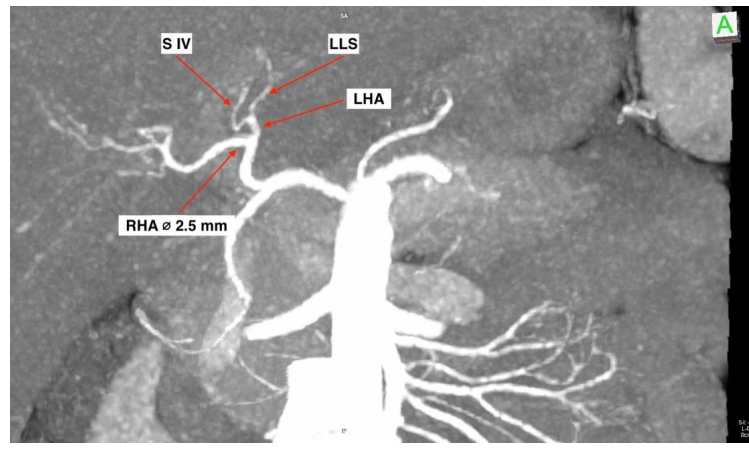
Timur Dzhanbekov^{1,2}, Konstantin Semash^{1,2}

1 – National Children’s Medical Center, Tashkent, Republic of Uzbekistan

2 – V. Vakhidov Republican Specialized Scientific and Practical Medical Center of Surgery, Tashkent, Uzbekistan

Donor’s clinical characteristics and outcomes

Variables	Value (n=40)
Age, years	40 (18-56)
Sex, n (%)	
Male	27 (67.5%)
Female	13 (32.5%)
BMI	23.2 (18-28.3)
Operation time	342.5 (230-440)
Estimated blood loss	250 (50-850)
Complications, Clavien-Dindo	
Grade 1	
Wound seroma	1
Grade 2	
Kidney failure	1
Pneumonia	1
Wound infection	2
Hemorrhage in drains	2
Grade 3a	
Pleural effusion	2
Biliary leakage	2
Grade 3b	
Bleeding from IVC	1
Biliary leakage	2
Median CCI (for donors with complications)	33.7
LOS, days	10 (7-28)





TTS2024

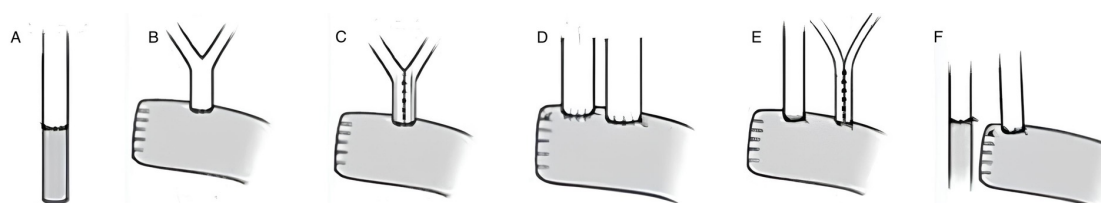
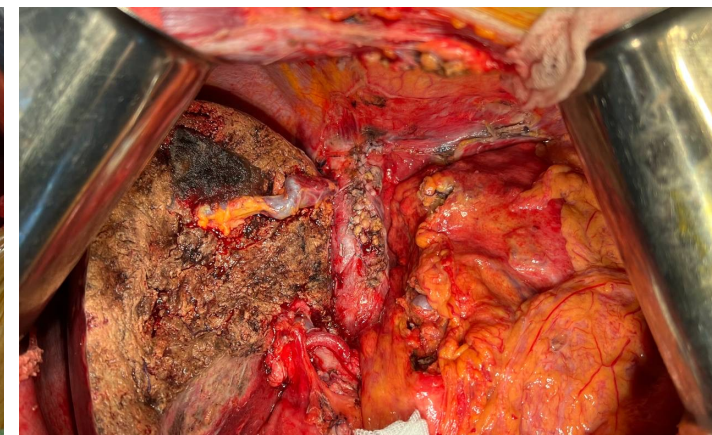
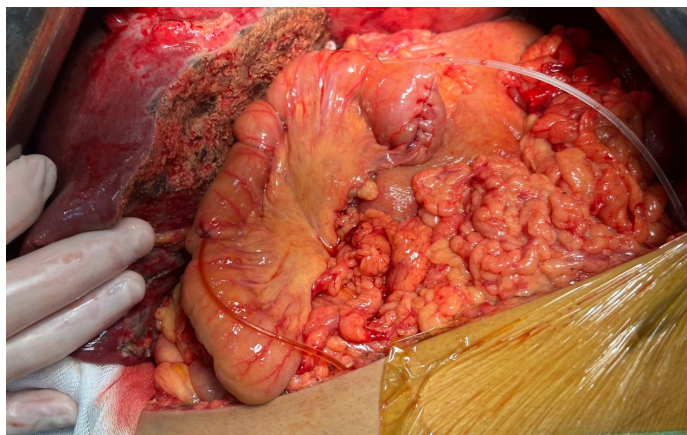
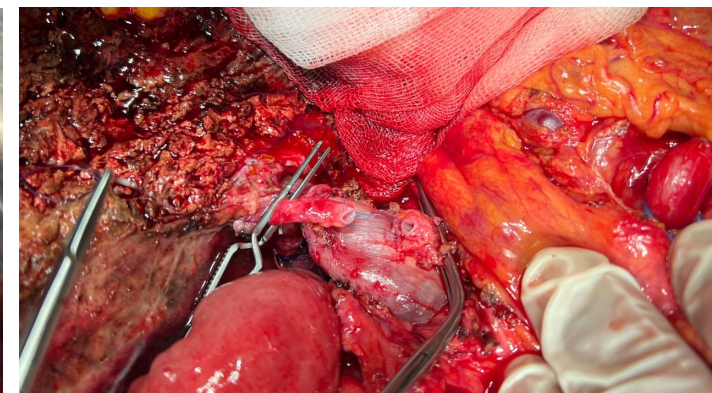
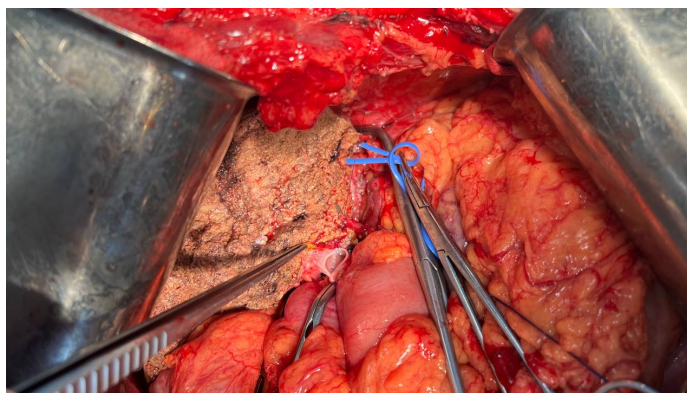
Results of first 40 cases of living donor liver transplantation performed in Republic of Uzbekistan

Timur Dzhanbekov^{1,2}, Konstantin Semash^{1,2}

1 – National Children’s Medical Center, Tashkent, Republic of Uzbekistan

2 – V. Vakhidov Republican Specialized Scientific and Practical Medical Center of Surgery, Tashkent, Uzbekistan

Variables	Value (n=40)
Graft vein outflow plasty	
Single RHV, no plasty	28 (80%)
2 RHVs, no plasty	3 (7.5%)
3 RHVs, unification plasty	2 (5%)
S8 vein and RHV unification plasty	2 (5%)
PTFE graft, S5 vein	1 (2.5%)
PTFE graft, S8 vein	1 (2.5%)
PTFE graft, S5 and S8 veins connecting	1 (2.5%)
FL graft, S5 and S8 veins connecting	2 (5%)
Caval anastomoses, n	
1	26 (65%)
2	14 (35%)
Arterial anastomosis type	
Separate	17 (42.5%)
Continuous	21 (52.5%)
Separate using SA	2 (5%)
Splenic artery ligation	
HA diameter, mm	4.2 (2.8-6.0)
SA diameter, mm	8.6 (5.2-10.1)
SA and HA diameter difference, %	95 (4-239%)
SA ligated, n (%)	35 (87.5%)
Biliary anastomosis	
Duct-to-duct (single bile duct)	11 (27.5%)
Duct-to-duct + Roux-n-Y	1 (2.5%)
Roux-n-Y (single bile duct)	7 (17.5%)
Roux-n-Y (2 bile ducts, single anastomosis after plasty)	10 (25%)
Roux-n-Y (2 bile ducts, 2 anastomoses)	4 (10%)
Roux-n-Y (3 bile ducts, single anastomosis after plasty)	1 (2.5%)
Roux-n-Y (3 bile ducts, 2 anastomoses after plasty)	6 (15%)





TTS 2024

Results of first 40 cases of living donor liver transplantation performed in Republic of Uzbekistan

Timur Dzhanbekov^{1,2}, Konstantin Semash^{1,2}

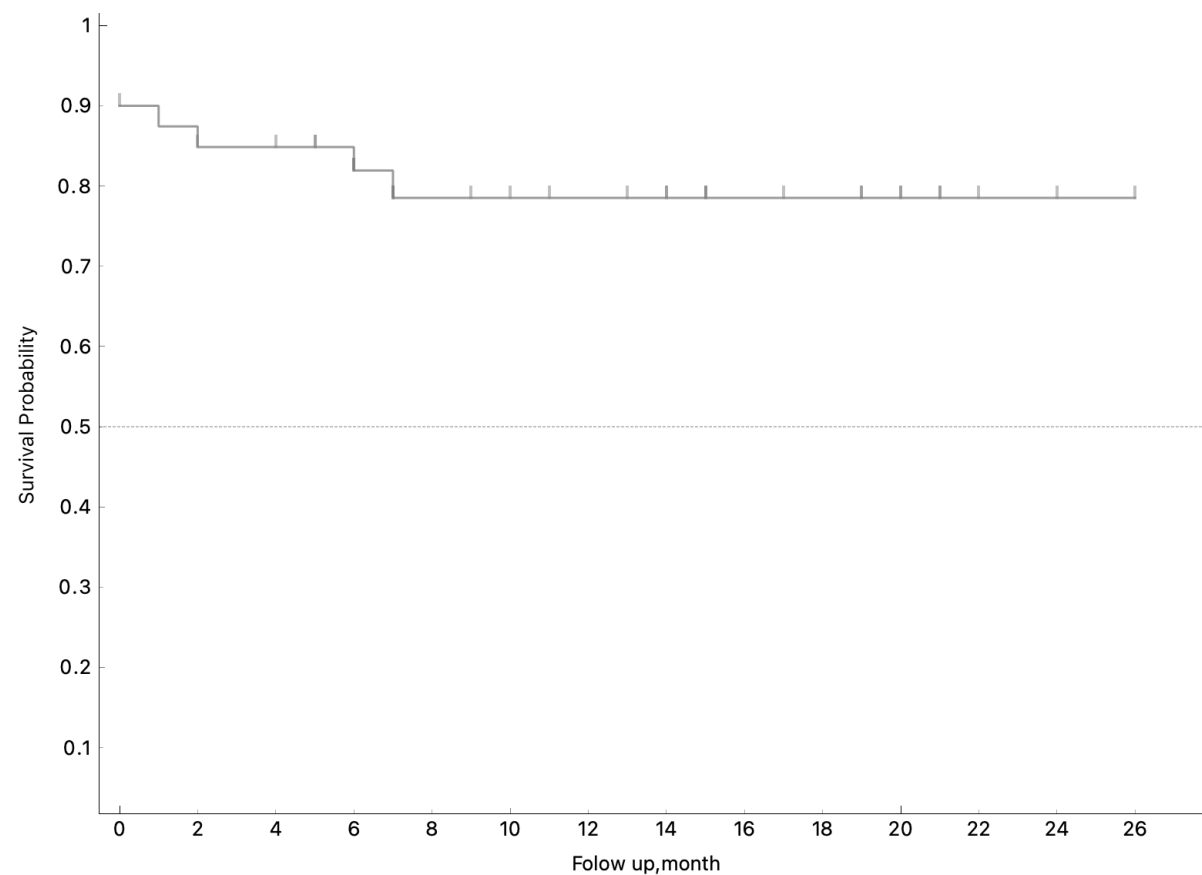
1 – National Children’s Medical Center, Tashkent, Republic of Uzbekistan

2 – V. Vakhidov Republican Specialized Scientific and Practical Medical Center of Surgery, Tashkent, Uzbekistan

Early and late complications following living donor liver transplantation

Complication, Clavien-Dindo	Early complications, n	Late complications, n
Grade 1		
Wound seroma	2	
Grade 2		
Bile leakage	6	
Acute rejection	2	
Chronic rejection		1
HBV de-novo		1
Grade 3a		
Bile leakage	6	
Right-sided pleural effusion	5	
Both-sided pleural effusion	2	
Intestinal bleeding	1	
Liver abscess		3
HAT	1	
HAS	3	
SASS	2	
PVS		2
Grade 3b		
Bile peritonitis (leakage)	2	
AS		2
Internal bleeding	2	
SASS	1	
Grade 4		
Convulsions	1	
Demyelination of the pons	1	
Cholangitis		1
Aspiration	1	
Sepsis	3	
Grade 5		
PVT	1	
Sepsis, PODS	2	
Acute rejection	2	
Covid-19 pneumonia		1
Aspiration		1
Chronic rejection (noncompliance)		1
Median CCI (for patients with complications)	42.6 (8.7-100)	80.1 (39.7-100)

Patients survival rate





TTS2024

Results of first 40 cases of living donor liver transplantation performed in Republic of Uzbekistan

Timur Dzhanbekov^{1,2}, Konstantin Semash^{1,2}

1 – National Children's Medical Center, Tashkent, Republic of Uzbekistan

2 – V. Vakhidov Republican Specialized Scientific and Practical Medical Center of Surgery, Tashkent, Uzbekistan

Results

In 1 (2.5%) case thrombosis of the hepatic artery developed. In 3 cases (7.5%) stenoses of arterial anastomoses were diagnosed, which were resolved by endovascular balloon vasodilation. In 3 cases (7.5%) splenic artery steal syndrome developed; it was managed by endovascular embolization of the splenic artery. One patient (2.5%) developed portal vein thrombosis. In 2 patients (5%), 10 months after transplantation, portal vein stenosis formed; endovascular balloon angioplasty was performed with good clinical effect. Biliary complications amounted to 45%, of which 89% were bile leakages and 11% were strictures of the biliary anastomoses. Hospital mortality was 12.5%.

Conclusion

The results of our research and analysis of the complications encountered are comparable with the data of the world literature and are acceptable at the stage of implementation of the liver transplantation program. Transplantation is feasible in our country, but it is necessary to improve surgical and therapeutic treatment methods in order to minimize the development of both early and late postoperative complications.