



УЛСЫН НЭГДҮГЭЭР
ТӨВ ЭМНЭЛЭГ

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13th Year Single-Center Experience of Living Donor Liver Transplantation in First Central Hospital of Mongolia

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First Central Hospital Of Mongolia



INTRODUCTION:

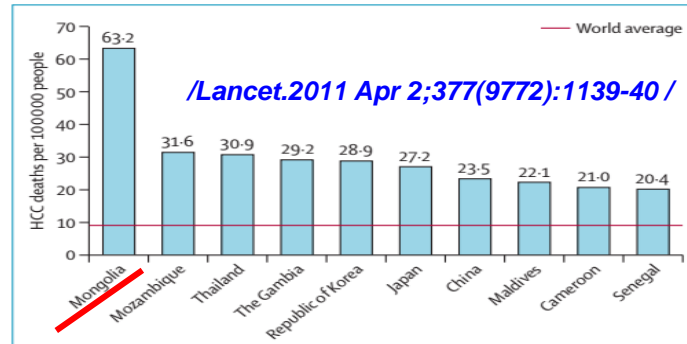
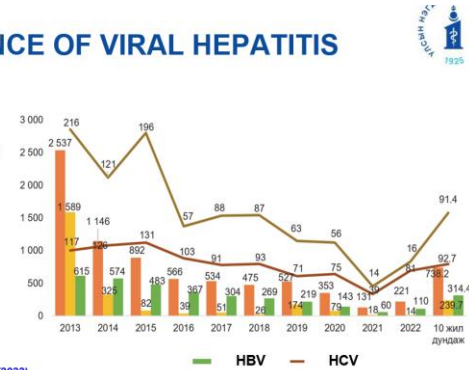


Figure: Top ten countries with the highest annual mortality rate from hepatocellular carcinoma (HCC)
Source: WHO.

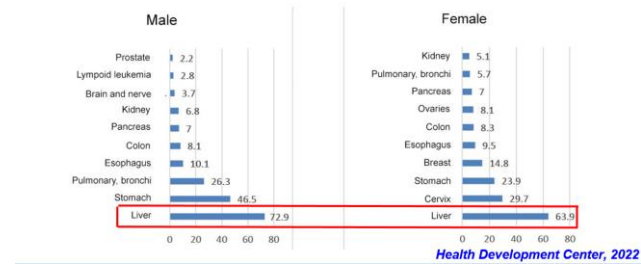
PREVALENCE OF VIRAL HEPATITIS

- 2011 - 14672 Viral Hepatitis
- HBV - 5.1% (748)
- HCV – 1.0% (147)



Health development center of Mongolia (2022)

The leading 10 locations for cancer, morbidity rate by gender, in 100,000 population, 2020

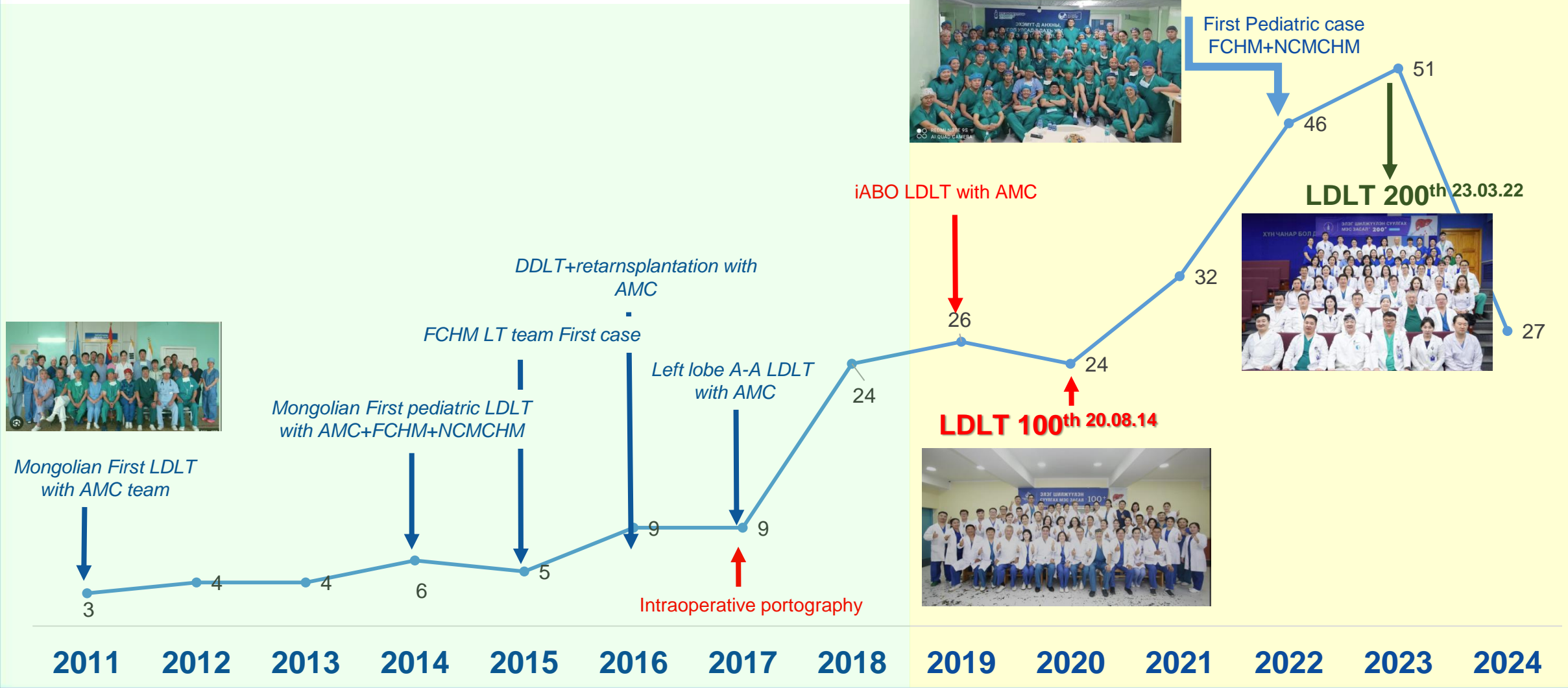


Health Development Center, 2022

Historical timelines of liver transplantation progress at the First Central Hospital

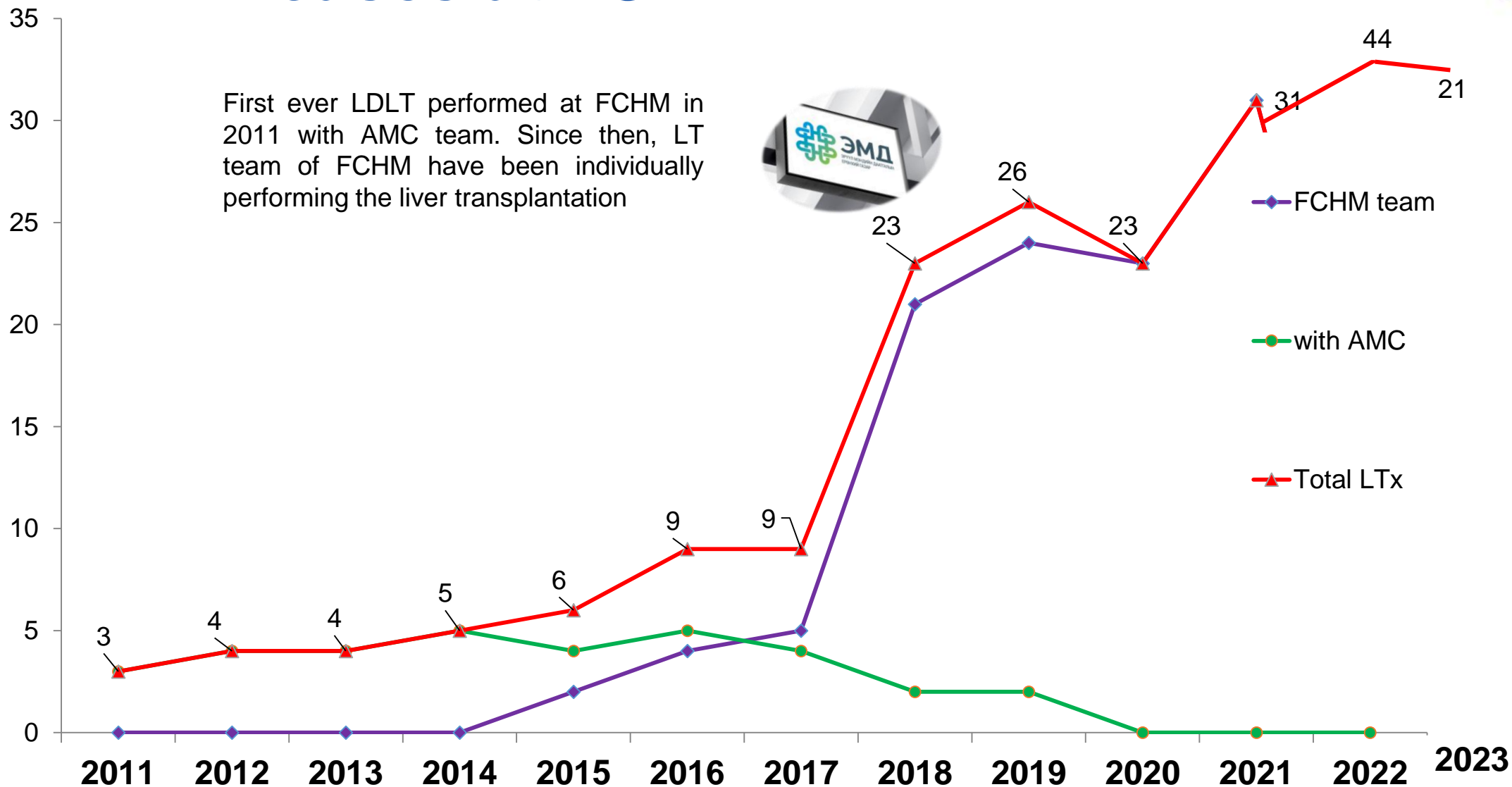
- 2005**: First successful kidney transplant
- 2007**: Received funding from the Mongolian Foundation for Science and Technology to establish liver transplant training program using a porcine model
- 2009**: Meeting with Prof. Sung-Gyu Lee to establish an international collaboration with Asan Medical Center
- 2010**: First time the Mongolia team traveled to South Korea for hands-on training on LT
- 2011**: First successful living donor liver transplant in Mongolia
- 2014**: First pediatric LDLT
- 2015**: First liver transplant performed independently
- 2016**: First deceased donor liver transplant; First re transplantation; Creation of the National Department of Organ Transplantation to oversee and regulate deceased donor liver transplantation
- 2018**: Funding from Mongolia government to cover expenses of 24 LT each year
- 2019**: First ABO incompatible liver transplant

Liver transplantation program at FCHM



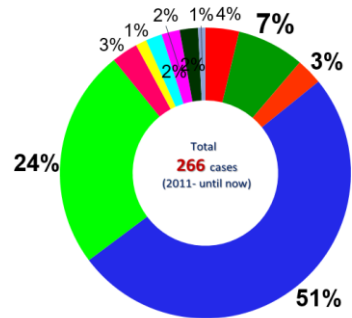
LT cases at FCHM

First ever LDLT performed at FCHM in 2011 with AMC team. Since then, LT team of FCHM have been individually performing the liver transplantation



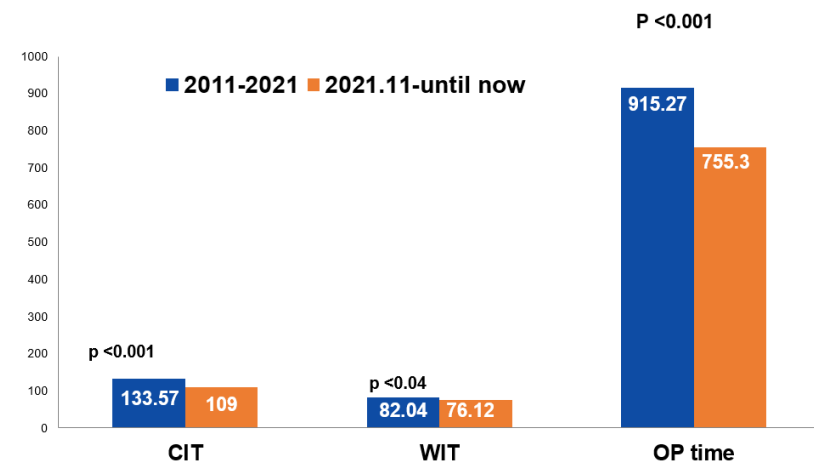
Result

Underlying liver disease-LT

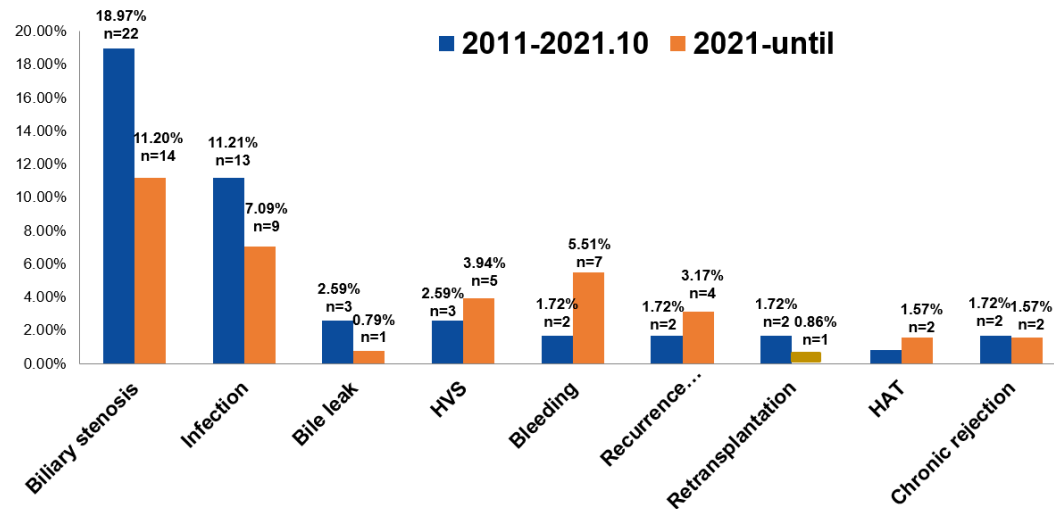


- HCV
- HBV
- HBV+HCC
- HBV+HDV
- HBV+HDV+HCC
- HBV+HDV+HCV
- HBV+HDV+HCV+HCC
- HCV+HCC
- Biliary atresia
- PBC
- Idiopathic

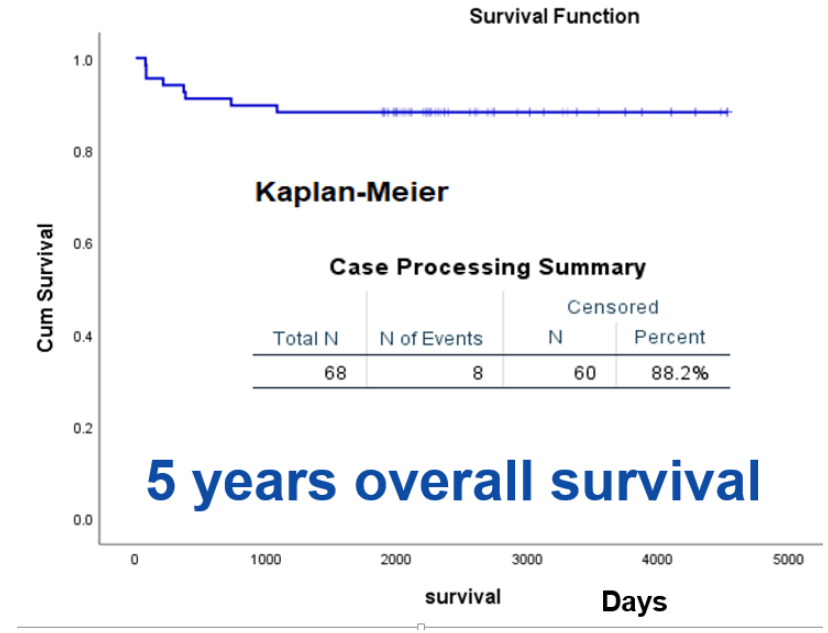
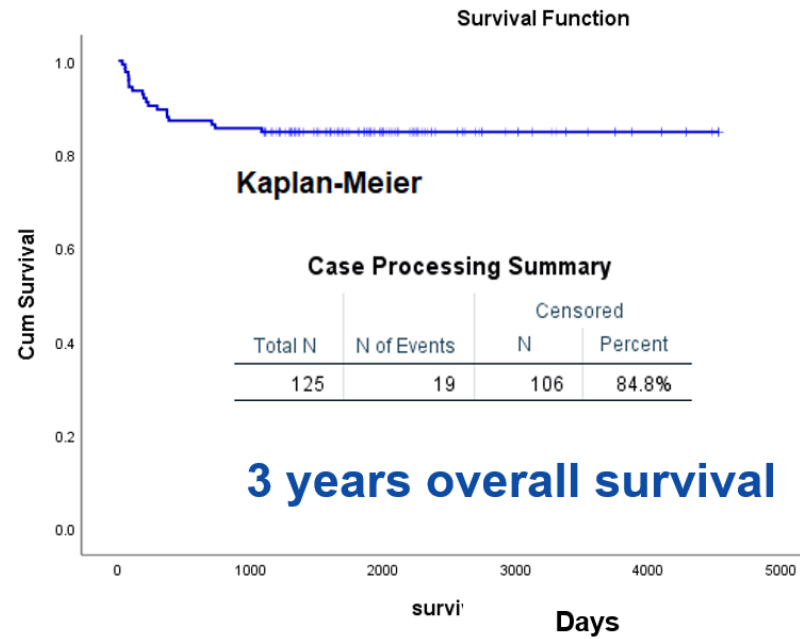
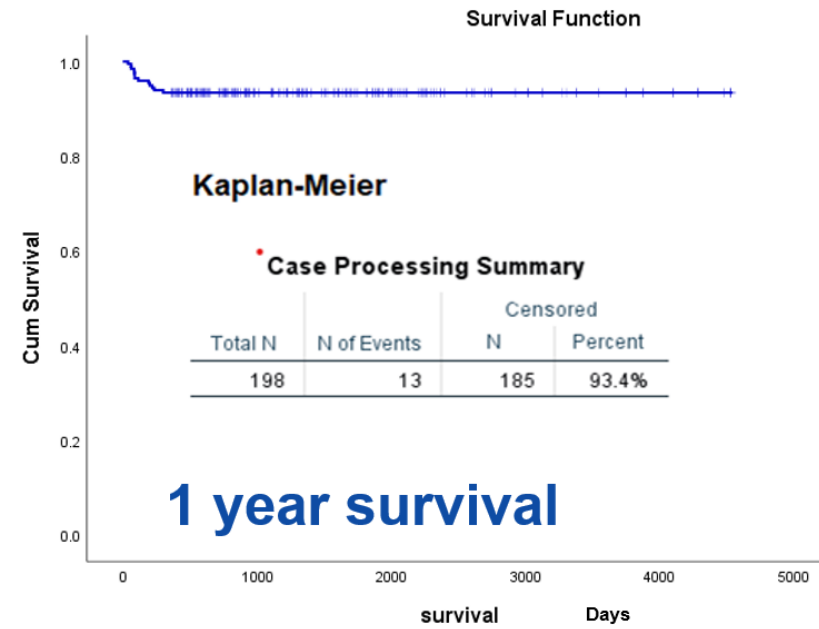
Characteristic	Mean
Age	45.6 ± 9.8
Sex	
Male	130
Female	136
Weight	71.1 ± 13.3 kg
BMI	25.6 ± 1.9 kg/m ²
MELD score	15.1 ± 5.4
Graft volume	738.6 ± 194.6 g
GRWR	1 ± 0.29



Post LT complications



SURVIVAL



DISCUSSION

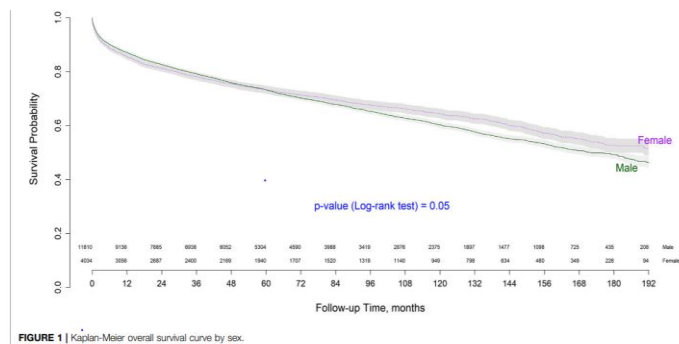
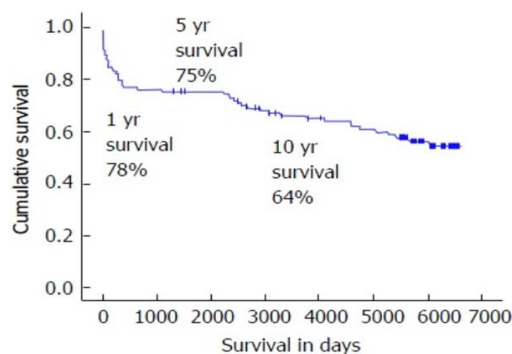


FIGURE 1 | Kaplan-Meier overall survival curve by sex.

Mortality and Causes of Death After Liver Transplantation:
Analysis of Sex Differences in a Large Nationwide Cohort

[World J Hepatic. 2017 Mar 18; 9\(8\): 427–435.](#)

[Transplant Int. 2022; 35: 10263.](#)

DISCUSSION

- Currently, the 1-year, 3-year, and 5-year patient survival rates are 91.8%, 83.8%, and 76.1%, respectively.

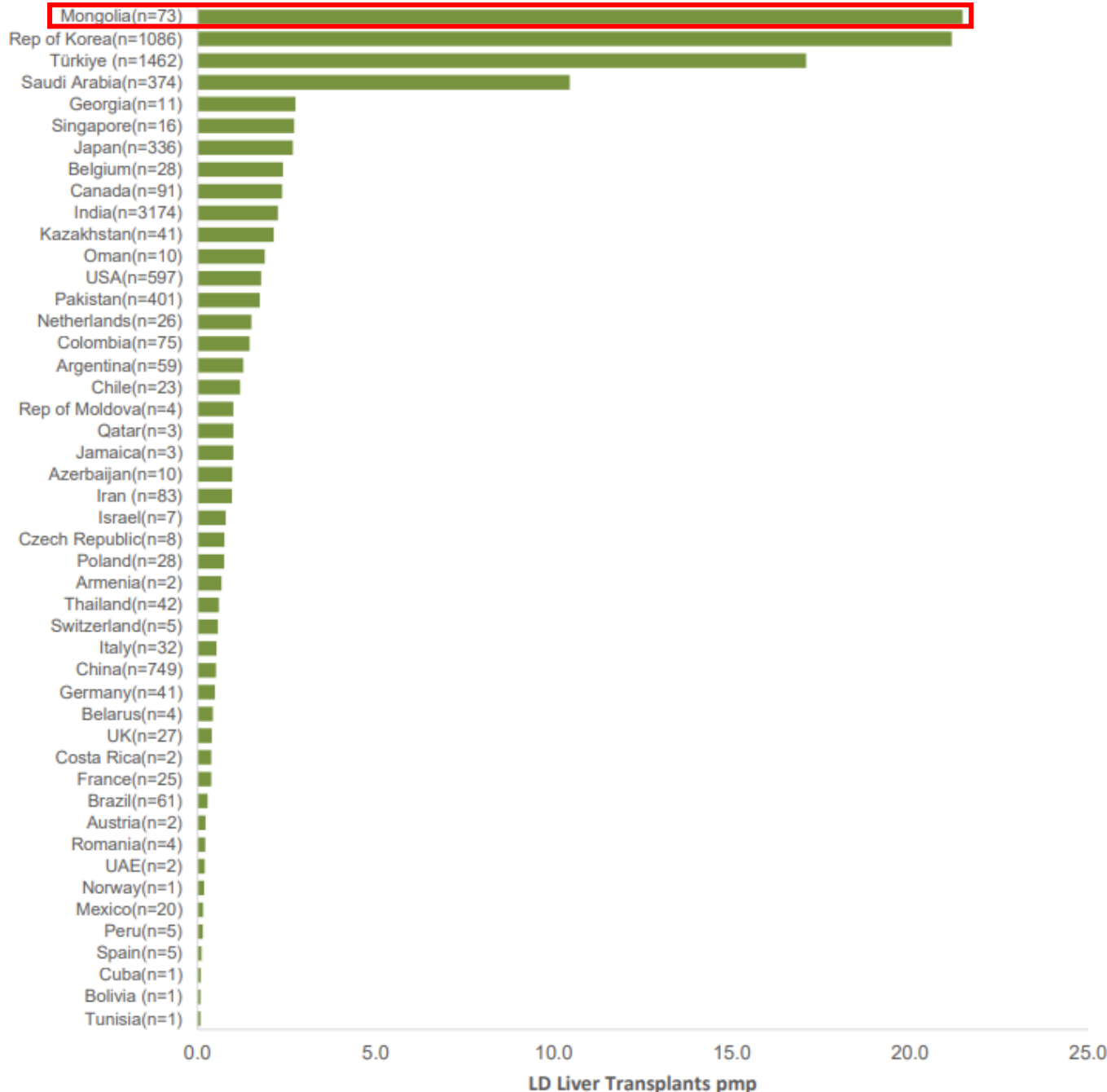
[United network for organ sharing organ procurement and transplantation network 2019.](#)

- Post-LT biliary complications include strictures (anastomotic and non-anastomotic), bile leaks, stones, and sphincter of Oddi dysfunction.
- Prompt recognition and management is critical as these complications are associated with mortality rates up to 20% and [retransplantation](#) rates up to 13%.

[Post-transplant biliary complications: advances in pathophysiology, diagnosis, and treatment. BMJ Open Gastro 2022;9:e000778](#)

DONORS

- 56.9% of donors are men, their average age is 31.6±7.6 years.
- 95.9% of donors were related to the recipient.
- Postoperative complications occurred in 2 donors:
 - Portal vein stenosis-1
 - Post-operative hernia-1
- Mortality rate is 0%.



Liver transplants activities from living donors (pmp) 2022



9 061 living liver transplants

Living Liver transplants performed in 47/91 countries



Conclusion

The establishment of an independent LT program in a LMIC with a help of Developed countries, with outcomes similar to well established programs is feasible, and significantly increases access to life-saving procedures for patients with end-stage liver disease.



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Thank you for your attention

