

Submission No.: CS05-5355

Session : Concurrent Symposium 5 (Liver)

Date & Time, Place : November 18 (Fri), 15:40-17:10, Room 5F-1

Session Title : How to Start and Establish New LDLT Program in Asian Countries

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## Liver transplantation in Mongolia

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**Liver Transplantation in Mongolia Background** Mongolia has one of the highest rates of viral hepatitis around the world. Prevalence estimates amongst the general adult population have been found to be 11.1% for HBV and 8.5% for HCV. Mongolia has the world's highest incidence of liver cancer, which is six times the global average and increasing. Hepatocellular carcinoma (HCC) is a significant public health problem. Liver cancer is the most common cancer and accounts for 43% and 35% of male and female cancers, respectively. Not only is liver cancer common, but it has a high mortality rate, being responsible for 43% of all cancer mortality. **Materials and methods** In 2011, a partnership was established with an experienced liver transplant team from Korea to perform the first LT in Mongolia. During the first 4 years, all LTs were performed with the experienced team, with gradually increasing involvement of the Mongolian team. In our retrospective study, patients were classified as having been transplanted in the Initial Period (2011-2016), where most transplants were performed with the mentoring team, or the Current Period (2017-2022), performed mostly by the local team. Primary endpoints were patient and graft survival at 1-year. Safety outcomes included complication rates. **Result** Ninety-nine (94%) transplants were LDLT out of all 168, and the most common graft was a right lobe (87%). The median graft-to-recipient weight ratio (GRWR) was 1.05 (IQR: 0.92-1.23) for the entire cohort. Median total ischemia times were longer on the current period 207 (IQR: 178-239) minutes, compared to the initial experience 159 (142-171;  $p < 0.001$ ). Seven pediatric LT were performed. All pediatric patients had biliary atresia and received a left lobe ( $n = 5$ ), or a left lateral segment ( $n = 1$ ) from a living donor. PELD at the time of LT ranged from 0-6. Median hospital length of stay was 29 (IQR: 21-35) days. Twelve (12%) patients had vascular complications, of which the most common were hepatic venous outflow obstruction (HVOO, 7%). Overall patient survival was 93.7% (95% CI: 88.9-98.7) at 1 year follow up. Patient survival during the independent period was 93.1% (95% CI: 84.3-100), similar to the 93.8% (95% CI: 88.2-99.8) observed during the learning period ( $p = 0.6$ ) **Conclusion** The establishment of an independent LT program in a LMIC with outcomes similar to well established programs is feasible, and significantly increases access to life-saving procedures for patients with end-stage liver disease. LT volume increased five-fold after graduation to program autonomy.

## Liver transplants over time

