

RESULT OF SALVAGE LIVER TRANSPLANTATION IN THE KOREAN ORGAN TRANSPLANTATION REGISTRY (KOTRY) STUDY

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Background : Salvage liver transplantation (SLT) is an attractive sequential strategy which combines liver resection for hepatocellular carcinoma (HCC), followed by liver transplantation (LT) in the event of HCC recurrence. This is especially true in countries where donor organs are scarce and timely primary liver transplantation (PLT) is, in many cases, difficult to take place. The aim of current study is to compare the long-term results of SLT with that of PLT using the Korean Organ Transplantation Registry (KOTRY) database.

Methods : From January 2014 to December 2021, a total of 5814 patients who underwent LT were registered. Among them, individuals without HCC or those found to have other malignancies were excluded. Only those who underwent living donor LT were included in analysis. Finally, 324 patients who underwent SLT were compared with 1836 PLT patients.

Results : Five-year overall survival (OS) was 96.7% and 90.1% in PLT and SLT groups, respectively ($P=0.04$). Five-year disease-free survival (DFS) was 85.5% and 77.9% in PLT and SLT groups ($P=0.02$). Independent predictive factors for OS after LT included HCC exceeding Milan criteria, number of tumors more than 2, AFP $>200\text{ng/mL}$ and microvascular invasion, whereas for DFS, number of tumors was not an independent predictive factor for poor outcome. Surprisingly, it was revealed that SLT was not the independent risk factor. In conclusion, SLT is a safe treatment strategy.

Conclusions : SLT, itself, is not an independent risk factor for poor outcome. Rather, those who received SLT may hold adverse individual risk factors that, as a whole, may affect the outcome after LT.

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