Outcome of Liver Retransplantation in a Combined Pediatric and Adult Transplant Program —An Initial Experience in Copenhagen—

Yasushi YAMAUCHI[1)], Yuichi YAMASHITA[1)], Koji MIKAMI[1)], Masanobu HYODO[2)], Andre WETTERGREN[2)], Peter Norgaard LARSEN[2)], Allan RASMUSSEN[2)], Preben KIRKEGAARD[2)], and Takayuki SHIRAKUSA[1)]

[1)] *Second Department of Surgery, Fukuoka University School of Medicine*
[2)] *Department of Transplantation Surgery, Rigshospitalet, Copenhagen University*

Abstract：Background：Despite generally poor outcomes for liver retransplantation, this is still the only therapeutic option in recipients whose primary graft has failed. The purpose of this study was to analyze the outcome of liver retransplantation performed at a single center in an attempt to identify risk factors associated with patient survival and to assess both morbidity and the causes of death.

Materials and methods：Between October 1990 and December 2002, 46 patients underwent 54 liver retransplantations at Rigshospitalet, University of Copenhagen. The survival data were stratified and multivariate analyses were conducted to identify variables associated with the outcome after retransplantation.

Results:The 90–day, 1－, and 5–year patient survival rates after retransplantation were 60.4%, 55.4% , and 43.8% , respectively, with the biggest drop in survival probability occurring 90 days after retransplantation. These survival rates were significantly worse than those following single transplantation during the same period. However, the results tended to improve in the latter phase of our program, especially when considering an urgent retransplantation. A multivariate analysis identified only two variables that demonstrated an independent prognostic value when estimating the long–term survival after retransplantation: namely, the operation time and the preoperative coagulation factor. The Cox model was highly predictive of subgroups of patients with little chance of surviving.

Conclusions:Our findings stress the importance of the preoperative levels of coagulation factor and the operative duration on the results after retransplantation. We believe that these findings should assist in the rational selection of patients suitable for retransplantation.

Key words：**Liver retransplantation, Patient survival, Multivariate analysis, Cox model**