

LV OP 1-2**Silent allograft fibrosis in 10-year post-transplantation histology of pediatric liver transplantation: Is it really silent?**

Jinsoo RHU, Suk-Koo LEE*, Sanghoon LEE, Jong Man KIM, Gyu Seong CHOI, Jae-Won JOH

Department of Surgery, Samsung Medical Center, Sungkyunkwan University School of Medicine, 50 Irwon-Dong, Gangnam-Gu, Seoul, Korea

Introduction : This study sought to analyze factors related to long-term allograft fibrosis in clinically stable pediatric liver transplantation patients.

Methods : Pediatric patients who underwent liver transplantation at Samsung Medical Center from January 1997 to January 2008 were reviewed. Ten-year protocol biopsies were examined by an expert pathologist specializing in liver transplantation. The degrees of inflammation and fibrosis were classified based on Banff criteria and the METAVIR system, respectively. Analysis of risk factors for allograft fibrosis was performed using logistic regression

Results : Sixty-six clinically silent pediatric patients who underwent 10-year post-transplantation biopsy were included. Protocol biopsy revealed nine cases (13.6%) with a rejection activity index ≥ 3 based on Banff classification and 31 cases (47.0%) with METAVIR fibrosis stage $\geq F1$. All the characteristics among the patients were similar except for experience of rejection when classified by Banff criteria (29.4% in normal, 60.9% in indeterminant, and 55.6% in mild rejection, $P=0.039$) and METAVIR staging (34.3% in F0, 36.8% in F1, and 83.3% in F2, $P=0.009$). More than three events with aminotransferase level elevated above 50U/L was the only significant factor for METAVIR $\geq F1$ (OR=3.351, CI 1.160–9.643, $P=0.026$) However, mean total bilirubin $\geq 1.0\text{mg/dL}$ during the entire period (OR=10.388, CI 1.414–76.322, $P=0.021$) and experience of rejection (OR=10.403, CI 1.788–60.531, $P=0.009$) were significant risk factors for METAVIR stage F2.

Conclusions : Even in clinically silent pediatric liver transplantation patients, long-term fibrosis occurs frequently, and repeated elevation of aminotransferases was related to METAVIR stages $\geq F1$, while experience of rejection and elevated mean total bilirubin $\geq 1.0\text{mg/dL}$ were related to METAVIR stage F2.

Corresponding Author. : **Suk-Koo LEE** (sukkoo.lee@samsung.com)