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Is There An Age Limit To Be A Liver Donor?

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Lecture : Donor shortage is one of the biggest hurdles in organ transplantation. Many efforts to expand the donors have been done to utilize marginal donors such as elderly donors. However, there has not been an age limitation to define absolute contraindication for liver transplantation. However, we have to consider the donor age separately in living donors from deceased donors as there is a safety issue in the living donor liver transplantation. Even though there were several reports to reveal that liver grafts from elderly donors (>60 years) did not show any different outcomes in terms of primary non-functions and long-term recipient survival, it has been thought that the elderly donor grafts is a risk factor for poor function in the immediate postoperative period and may negatively affect overall patient survival. Singhal et al. reported their retrospective analysis using OPTN data and showed a 1-year patient survival rate of 83.8% with allografts from donors who were 60 to 79 years old. But other reports suggested that surgeons attempting to use allografts from donors of an advanced age must ensure careful selection of the recipient and work toward minimization of cold ischemia time. It should be noted that the risk associated with older liver allografts is heightened in the hepatitis C virus-positive recipient, and thus the latter combination should be avoided. Regarding living donor liver transplantation, most centers consider suitable donor age under 55 for donor safety. Murat et al. analyzed the donor outcomes in extended criteria surgery defined as right hepatectomy with a middle hepatic vein or remnant liver volume less than 35% comparing two age groups; divided at the age of 55. They concluded that extending the limits of surgery comes at the price of more complications in elderly donors in living donor liver transplantation. Thus, they suggested that right hepatectomy with MHV harvesting and any procedure causing a residual liver volume less than 35% should be avoided in living liver donors who are 50 years old or older. We can carefully expand the donor pool with the elderly donor in deceased donor liver transplantation but we have to very cautiously select old age living donors to prevent major complications in extended surgery. References 1. Andrew S. D, Parsia A. V. Expanding the donor pool in liver transplantation: Extended criteria donors. *Clinical Liver Disease* 2013;2(4):156-159 2. Yi Zhao, Chung Mau Lo, Chi Leung Liu, et al. Use of elderly donors (>60 years) for liver transplantation. *Asian Journal of Surgery* 2004(27):114-119 3. Harleen C, Mohamad H. Y, Abdelmajeed A. A, et al. Elderly donor graft for liver transplantation: Never to late. *World J Transplant* 2017;7(6):324-328 4. Murat D, C. Burcin T, Onur Y, et al. Utilization of Elderly Donors in Living Donor Liver Transplantation: When More is Less? *Liver Transplantation* 2011(17):548-555