Arash Nickkholgh

Dr. med.

<u>Positive Implications of Extended Donor Criteria in Liver Transplantation</u>

Medizinische Fakultät

Ruprecht-Karls-Universität Heidelberg

Promotionsfach: Chirurgie

Doktorvater: Prof. Dr. med. Peter Schemmer, MBA

Systematic liberalization of graft acceptance criteria provides an immediate expansion of the donor pool with acceptable graft and patient survival. The use of livers with up to three extended donor criteria seems to be safe and increases the donor pool and transplantation dynamics with satisfying results. The unique possibility to match livers with recipients (in certain allocation categories), which is left to the discretion of accepting center, should be judged according to center's experience to decrease the waiting times for a timely rescue of organs/recipients. However, risk factors for poor outcome should be identified and avoided in order to avoid "futile transplants". There is no age limit to be an organ donor. However, recipients with hepatitis C should not, when feasible, receive grafts from very old donors. Grafts with moderate macrovesicular steatosis (30-60%) may be utilized in the absence of additional risk factors in the donor or recipient; livers with more than 60% macrosteatosis should probably be excluded. Donor hepatitis C virus (HCV) status does not impact on graft or patient survival after liver transplantation for HCV+ recipients. The use of hepatitis B virus (HBV) immune globulin (HBIG), with or without lamivudine, is used to prevent HBV transmission from donor to recipient in cases of donor anti-HBc positivity. Adequate donor maintenance and careful microbiologic surveillance and treatment of donors with a prolonged ICU stay is necessary. History of melanoma, choriocarcinoma, and lung cancer precludes organ donation. History of glioblastoma multiforme and medulloblastoma in donors also increase the risk of transmission to the recipient. In order to optimize effective utilization of EDC, a careful consideration of recipient outcome with these organs and a careful matching of the most appropriate graft-recipient pair should be made while trying to keep cold and warm ischemia times as short as possible and prompting to perform a retransplantation when necessary.