Biliary Complications After Liver Transplantation From Donation After Cardiac Death Donors: An Analysis of Risk Factors and Long-term Outcome From a Single Center

To the Editor:

The article by Foley et al[1] reflects the great work of the University of Wisconsin group in the field of donation after cardiac death (DCD) and liver transplantation since 1993.[2–4] They performed a retrospective analysis of their center's results and compared outcome after liver transplantation from DCD donors with the results after liver transplantation from brain death donation (DBD). Patient and graft survival and complication rates were compared between these 2 groups. In the discussion, the authors state that the literature on identification of risk factors for graft survival is limited to only 2 reports, those of Mateo et al and Lee et al. In our opinion, we do not believe this is correct.

We have previously published the results of the outcome of DCD liver transplantation in The Netherlands. We compared outcomes after orthotopic liver transplantation with DBD donor livers versus controlled DCD livers, using predefined restrictive acceptance criteria.[5] Primary endpoints were patient and graft survival and nonanastomotic biliary strictures. We also examined risk factors for graft loss. Our results showed similar 1- and 3-year patient survival rates for DCD (85% and 80%) and DBD liver transplantation (86% and 80%) and similar 1- and 3-year graft survival rates (74% and 68% vs 80% and 75%). We identified the following risk factors for 1-year DCD graft loss: transplantation center, recipient warm ischemia time, and cold ischemia time. The occurrence of nonanastomotic biliary strictures was higher in the DCD group. Primary sclerosing cholangitis was a risk factor for nonanastomotic biliary strictures in both DBD and DCD. Because in our analysis, transplant center was significantly associated with outcome in DBD and DCD liver transplantation, these data show that not just recipient and donor factors play a significant role in outcome after transplantation. This may explain why some single-center results of patient and graft survival may differ from data derived from large database analysis. Programs with restrictive acceptance criteria for DCD livers may have better results than average. We agree with the conclusions of the authors that careful selection of DCD donors and minimizing the ischemic times might be the key to optimizing the results of DCD liver transplantation.

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