Outcomes of deceased donor liver transplantation from elderly donors

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Background: Favorable outcomes achieved after deceased donor liver transplantation (DDLT) suggest that use of elderly donors may be an effective way to expand donor pool.

Methods: This was a retrospective analysis of adult DDLT using elderly donors. It was a double-arm study that compared post-transplant outcomes to ascertain whether use of elderly donors (aged ≥ 76 years) has adverse effects on outcome of DDLT. The elderly study group included 14 donors aged ≥ 76 years and the elderly control group comprised 39 donors aged 66–75 years.

Results: Mean age of the elderly and control groups was 78.2 ± 3.1 years and 68.9 ± 2.7 years, respectively ($P < 0.001$). Other clinical parameters were comparable between these two groups. The 1-, 3-, and 5-year graft survival rates in the elderly study group were 83.6%, 59.7%, and 59.7%, respectively, and those in the elderly control group were 79.4%, 68.1%, and 59.6%, respectively ($P = 0.97$). The overall 1-, 3-, and 5-year survival rates after donation from the elderly study group were 83.6%, 59.7%, and 59.7%, respectively, and those after donation from the control group were 79.3%, 72.1%, and 64.1%, respectively ($P = 0.74$). Regarding overall patient survival, univariate analysis identified pretransplant requirement for ventilator support ($P = 0.021$) and pretransplant renal replacement therapy ($P = 0.025$) as statistically significant risk factors; however, neither was significant on multivariate analysis.

Conclusions: The data suggest that organs from elderly donors do not worsen posttransplant outcomes; thus, advanced age should not be an exclusion criteria criterion. Indeed, using such donors could be the key to increasing the supply of liver grafts.

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