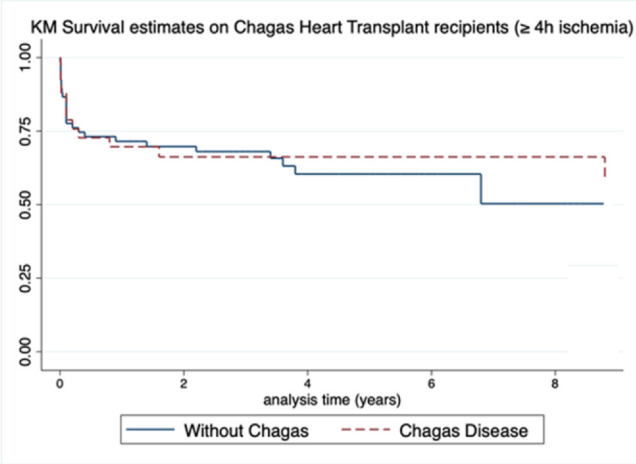

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Combined Heart-Liver Transplant versus Isolated Heart or Liver Transplant in Amyloidosis

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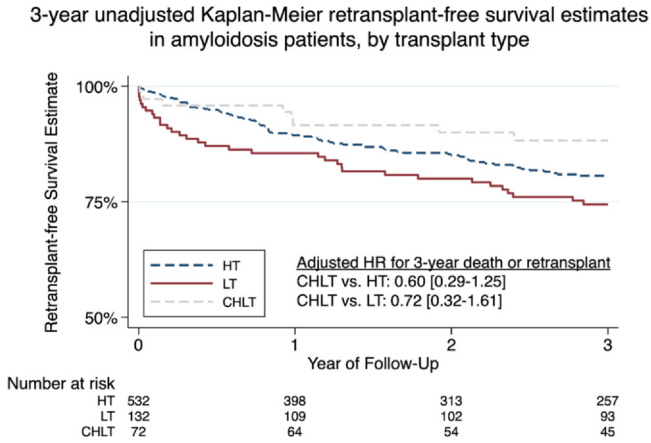
Purpose: Familial amyloidosis can involve multiple organs and is the one of the most common indications for combined heart-liver transplant (CHLT). We aimed to compare long-term CHLT outcomes with those after isolated heart (HT) or liver (LT) transplant for amyloidosis.

Methods: Adult patients undergoing 1st time transplant for amyloidosis between 1/1/2000 and 6/30/2021 were identified in the United Network for Organ Sharing database. Patients were stratified by transplant type: HT, LT or CHLT. Other multiorgan transplants were excluded. The primary outcome was survival free from repeat heart or liver transplant for amyloidosis.

Results: 736 patients underwent transplant for amyloidosis during the study period, including 532 (72%) isolated HT, 132 (18%) isolated LT, and 72 (10%) CHLT. Compared to isolated LT, CHLT patients were older (60 vs. 54 years) and more likely to require intensive care unit stay pre-transplant (49% vs. 59%), but had lower median Model for End-Stage Liver Disease scores (25 vs. 22) (all $p < 0.001$). Median cardiac index and rates of waitlist dependence on life support were similar between patients who underwent CHLT and isolated HT (all $p > 0.5$). Post-operative length of stay was longer after CHLT than LT or HT (20 vs. 8 vs. 15 days, $p < 0.001$). No repeat transplants occurred in the CHLT group. 3-year re-transplant-free survival was non-different between HT and CHLT patients (p=0.164), but was significantly higher in CHLT compared to LT patients (88% vs. 74%, p=0.027). Compared to LT, CHLT was protective against 3-year death or retransplant on univariable Cox analysis (hazard ratio 0.43 [0.20-0.93]), but not multivariable analysis (adjusted hazard ratio 0.72 [0.32-1.61]).

Conclusion: Although amyloidosis patients undergoing CHLT had longer post-operative hospital stays, long-term retransplant-free survival was non-inferior to that after isolated LT or HT. CHLT is safe and should be considered in amyloidosis patients undergoing LT or HT evaluation.



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Comparative Outcomes of Simultaneous Heart-Kidney Transplantation from DBD and DDC-NRP Donors

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Purpose: Donation after circulatory death (DCD) heart transplantation (HT) is safe and increases transplant activity. Thoracoabdominal normothermic regional perfusion (NRP) rapidly restores perfusion in DCD donors, and promotes *in-situ* metabolic recovery. NRP can facilitate multi-organ recovery from DCD donors, however outcomes after simultaneous heart-kidney transplant remain unknown.

Methods: We retrospectively analyzed transplant outcomes of simultaneous heart-kidney recipients from DCD donors using an NRP procurement strategy (SHK-DCD, n=13), versus DBD donors (SKH-DBD, n=35) at our institution. We compared baseline characteristics and outcomes between SHK-DCD and SHK-DBD groups. Primary outcomes were the incidence of moderate-to-severe cardiac primary graft dysfunction (PGD), or kidney delayed graft function (DGF). Secondary outcomes were inotrope days, time to cessation of dialysis, and creatinine at 1-, 3-, and 6-months post-transplant.

Results: 35 SHK-DBD and 13 SHK-DCD were included in the study. Median follow-up was 1300 days (IQR 855-1632) and 545 days (IQR 372-723) in the SHK-DBD and SHK-DCD groups, respectively. The incidence of moderate-severe cardiac PGD was similar between groups. Kidney DGF occurred in 45.7% of SHK-DBD recipients and in 38.5% of SHK-DCD recipients (p=0.65). For recipients requiring post-transplant dialysis, median time to cessation of dialysis was 7 and 10 days in the SHK-DBD and SHK-DCD groups (p=0.46). There were no differences in creatinine at 1-, 3-, and 6-months post-transplant.

Conclusion: Transplant outcomes between SKH-DBD and SHK-DCD recipients were comparable, with similar rates of cardiac PGD and kidney DGF out to 6 months-post transplant.

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Donation After Circulatory Death: Two-Year Outcomes in a Propensity-Matched Cohort

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Purpose: The inclusion of donation after circulatory death (DCD) donor hearts has expanded the donor pool in the U.S. since 2019. Comparable one-year outcomes between DCD and donation after brain death (DBD)