

Comment on AHA Scientific Statement “Dual-Organ Transplantation: Indications, Evaluation, and Outcomes for Heart-Kidney and Heart-Liver Transplantation”

Recently published AHA Scientific Statement document “Dual-Organ Transplantation: Indications, Evaluation, and Outcomes for Heart-Kidney and Heart-Liver Transplantation: A Scientific Statement from the American Heart Association” has a detailed analysis of simultaneous heart transplantation along with kidney and liver transplantation (1).

The combination of cardiac, renal and hepatic insufficiencies is quite common and is a challenge for transplant teams in all transplantation centers. The protocols and guidelines for transplantation of each individual organ are now well developed, but the indications and risk factors in simultaneous transplantations are always very personalized and difficult to systematize and summarize.

In this article, the authors have managed to make a statistical analysis of the indications for surgery, analyze immune responses after dual-organ transplantation, compare different immunosuppression protocols, describe various techniques of simultaneous transplantation, and track immediate and long-term outcomes, all using a large clinical material. Based on this profound analysis, the authors make recommendations for a protocol of pre-surgery evaluation. Following the evaluation results, clear indications for heart-kidney and heart-liver transplantation are defined. Recommendations for induction and long-term immunosuppression are given.

The authors also analyze organ allocation policies and the risks for unfair allocation, especially for kidney transplant candidates where the gap between the number of recipients and the number of transplantations is particularly large. Such allocation should be based on ethical principles of fairness and rational use of donor organs.

Of particular interest in the article is Table 2, which shows unresolved issues and potential solutions of dual-organ transplantation. The lack of consensus for selection of patients for dual-organ transplantation remains an open issue and requires further resolution.

Summarizing their study, the authors conclude that in the context of organ donor shortage, a very balanced selection of candidates for dual heart-kidney and heart-liver

transplantation should be made, keeping in mind that two recipients, each in need of only one organ, can be saved with these two organs.

The article authors have certainly done a great analytical job in such a complex problem. The published results are especially helpful to those centers that are just starting their transplant program and have no experience of their own in dual-organ transplantations.

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References

1. Kittleson MM, Sharma K, Brennan DC, Cheng XS, Chow SL, Colvin M, et al. on behalf of the American Heart Association Heart Failure and Transplantation Committee of the Council on Clinical Cardiology; Council on the Kidney in Cardiovascular Disease; Council on Cardiovascular Surgery and Anesthesia; Council on Cardiovascular and Stroke Nursing; Council on Quality of Care and Outcomes Research; and Council on Lifelong Congenital Heart Disease and Heart Health in the Young. Dual-Organ Transplantation: Indications, Evaluation, and Outcomes for Heart-Kidney and Heart-Liver Transplantation: A Scientific Statement From the American Heart Association Endorsed by the International Society for Heart and Lung Transplantation. *Circulation* 2023; 148: 622–36. DOI: 10.1161/CIR.0000000000001155

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