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Commentary: Up, down, right, left: Addressing the shortage of donor lungs for transplantation

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Worldwide, donor lungs for lung transplantation remain in short supply. In no country is this shortage as acute as it is in Japan, where donation rates remain low due to cultural and other factors. As a result, Japanese lung transplant surgeons are renown for their creativity and technical prowess in addressing this shortage. Chida and colleagues¹ from Dokkyo Medical University School of Medicine detail their technique of right-to-left inverted single lung transplantation—an extension of the work that has been done in Japan to pioneer living donor lung transplantation and other techniques to address the donor shortage. They should be commended for describing this complex, technical operation.

In North America, the reasons for donor lung shortages are not related to a low rate of donation, but rather to a low rate of use by surgeons of potentially eligible donor lungs. In the United States especially, where the majority of lung transplantation is done in relatively low-volume centers, many useable donor lungs are discarded. Several reports have confirmed that decline of lungs for quality or other reasons on the US donor list does not indicate that lungs are not usable, in fact Cypel and colleagues² from the Toronto Lung Transplant Program have detailed their experience using lungs declined across the United States and found no difference in outcomes of these versus standard donor lungs from Canada. Other reports have shown that regardless of where a lung is accepted on the US match run list, the outcomes do not differ, implying that declines at the top of the list are not reliable markers of organ quality.³

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CENTRAL MESSAGE

Although an innovative approach to extending the use of donor lungs is described, continued efforts to improve overall donation rate should be pursued.

The reasons for this are myriad, and include lack of specialized training in lung transplant, little experience with salvage techniques for marginal donors such as extracorporeal membrane oxygenation, and others, but certainly an unwillingness to take on risk because of the implications for United Network for Organ Sharing reporting and regulatory backlash also play a role.

The report from Chida and colleagues¹ is an impressive technical feat, and the authors should be congratulated on the successful implementation of this technique. However, given the relative number of donors and recipients in the United States, the applicability of a complex technique is questionable in this country, when simply making the decision to use a greater number of standard donors would suffice. Changing our decision making en masse is no easy feat, and would require a concerted effort from national policy makers to encourage greater use of donor organs in centers of excellence. If we could stop turning down so many lungs, we could use them up—and we would not need to flip them from right to left.

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