Lungs from donation after cardiac death for transplantation

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We read with interest the publication by Zych et al. [1] regarding lung transplantation from donation after cardiac death (DCD) donors. Concern that DCD lungs might be inferior to lungs from brain-dead donors appear to be significant barriers to widespread adoption. Our prior studies [2, 3], which also represent a large portion of the national DCD lung transplantation experience, have been very favourable, and we advocate its utilization as a means of overcoming the donor shortage. We have approached selection, procurement and implantation of DCD organs in a fashion analogous to that for brain-dead donors with essentially no modification of our standardized protocols.

There have been concerns about the timing and dosage of heparin for DCD lung harvest. Delayed heparin administration after cardiac death does not seem to affect thrombus formation in an animal model of lung procurement after cardiac death, and concerns about thrombosis appear unfounded [4]. We noted that the authors did not administer heparin prior to cardiac arrest. However, at this juncture, we routinely administer full-dose heparin prior to a withdrawal of support and hope to expand the pool to include donors in whom heparin is not permitted.

We noticed that the authors had a higher primary graft dysfunction (PGD) 3 score on arrival to the intensive care unit in the DCD group, whereas in our series 91% of patients had PGD scores of 0 at T0, T24, T48 and T72 h. The survival in our series was 97% at 30 days, 91% at 1 and 2 years, respectively, and 71% at 3 and 4 years, and our growing experience suggests that recipient survival and early graft function using DCD lungs are excellent. Concerns about diminished organ quality are unwarranted, and the use of DCD lungs should be expanded. We whole-heartedly agree with the authors that DCD lungs are a valuable and excellent source of good quality organs for transplantation.

REFERENCES