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Lobar transplantation To the Editor:

In their communication detailing their observations of the detrimental effects of hyperinflation of transplanted lungs, Kozower and colleagues¹ speculate that patients receiving lobar transplants may be at even greater risk for this complication due to the greater potential for size disparity between lobe and hemithorax. This is indeed the case as we have recently reported.² We believe the mechanism to be as described by Kozower's group. We also believe this size disparity is even greater than would otherwise be predicted as the anterior-posterior dimension in cystic fibrosis patients increases because of lung hyperinflation during the period of bony development of the thorax.³ We have observed that this physiology is more apparent and the hemodynamics are more severely affected with increasing size disparity. Early in our experience, the breath stacking occasionally became severe enough to cause severe hemodynamic depression as a result of the altered respiratory mechanics.²

These observations have led us to modify our postoperative management for lobar transplantation as follows²:

1. In the operating room, 4 chest tubes are placed (2 in each hemithorax) and

connected to water-seal with no negative pressure.

2. Positive end-expiratory pressure is applied in the operating room (5-10 cm H₂O as tolerated) and continued in the intensive care unit.
 3. Negative pressure is applied to the chest tubes in sequence: 5 to 10 cm H₂O to each tube, in 1-hour intervals, rotating for the first 24 hours. Later, each tube is placed on continuous suction that is gradually increased to -20 cm H₂O over the next 48 hours as tolerated.
- Using the above procedure on all lobar transplant patients, we have minimized the hemodynamic consequences of the donor-to-recipient size discrepancies inherent in this procedure and have not seen similar acute deterioration in the last 90 to 100 lobar transplantation cases.

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Reply to the Editor:

We are grateful for the confirmation provided by the letter and the case report by Haddy and colleagues. Readers interested in this phenomenon are encouraged to read their article¹ for a clear and methodical description of an event that sounds identical to our "index case" in 1997. After several sporadic observations over 3 years, we attempted to capture the phenomenon in a

prospective fashion and the result is our own brief report.²

Our only disagreement with their letter is with the University of Southern California protocol for avoiding the stacking of breaths in transplant recipients with undersized grafts. In our experience, chest tubes placed to water-seal can still elicit the phenomenon when there is no air leak from the visceral pleural surface. This absence of air leaks may be uncommon after bilateral transplant, but we still begin with 1 tube on each side unconnected and thus open to atmospheric pressure. Also, the subsequent application of negative pressure to 1 of 2 chest tubes seems equivalent to applying it to both tubes: either the pleural pressure is negative or it is not. Two tubes on suction should only make a difference in pleural pressure if there are large air leaks and the removal of air from the pleural space is faster with 2 tubes on suction. If one tube is placed on suction and breath stacking does not happen immediately, our experience suggests that it will not occur.

Otherwise, we are reassured that our observations are validated by a simultaneous and independent report from a distinguished team of lung transplant experts.

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Brachial artery cannulation To the Editor:

In their report Galajda and colleagues¹ describe their technique of brachial artery cannulation for two patients with type A aortic dissection. One patient was cannu-