of small vegetations (<3 mm), recent embolization, nonoscillating or atypically located vegetations, or difficult to identify IE lesions in the setting of preexisting cardiac lesions (mitral prolapse, prosthetic valves, intracardiac devices, degenerative or sclerotic valves). Although the combination of negative TTE and TEE study results provides a 95% negative predictive value, such results do not definitively rule out vegetative IE. Current guidelines recommend repeating TEE imaging in 7 to 10 days if clinical suspicion remains high in the setting of an initial negative echocardiographic interpretation. In this report, an aggressive valvular infection with local tissue destruction developed within only 7 days. With a growing body of evidence supporting early surgical intervention in IE, this case provides a strong justification for repeating echocardiographic imaging, because earlier identification of the severity of infection might have prompted earlier surgical intervention and potentially yielded an improved surgical outcome.

References


Ex vivo lung perfusion to evaluate donor lungs after high-pressure pulmonoplegia

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Shortage of organ donors results in significant mortality among patients on transplant waiting lists, necessitating thorough evaluation before declining potentially transplantable organs. We report a case in which donor lung pulmonoplegia was accidentally delivered under high pressure. Despite a potential risk from elevated flushing pressures, the lungs were successfully transplanted after assessment with ex vivom perfusion (EVLP). However, pulmonoplegia delivered. Because of the possibility of alveolocapillary damage in the pulmonary vascular bed, it was decided not to transplant the lungs directly; rather, the donor lungs were evaluated with EVLP to assess suitability for implantation.

CLINICAL SUMMARY

Lungs from a 35-year-old female multiorgan donor with brainstem death after intracranial hemorrhage were provisionally accepted for a 52-year-old male patient with pulmonary fibrosis who was on our waiting list. Blood gas values at the time of organ offer showed a ratio of PaO2 to inspired oxygen fraction greater than 300; all other parameters were acceptable.

Organ retrieval entailed median sternotomy and satisfactory on-table assessment, including pulmonary vein gas values. After bicaval ligation and aortic clamping, the right atrium and left atrial appendage were incised for venting while the lungs were flushed with 50-mL/kg cold Perfadex solution (Vitrolife AB, Göteborg, Sweden). Inadvertently, the pulmonary artery was perfused at very high pressures (pressure gauge reading >150 mm Hg), and the error was noticed only after 2 to 3 minutes (almost all pulmonoplegia delivered). Because of the possibility of alveolocapillary damage in the pulmonary vascular bed, it was decided not to transplant the lungs directly; rather, the donor lungs were evaluated with EVLP to assess suitability for implantation.

After returning to our center, the organs were transferred to the XVIVO Organ Chamber (Vitrolife) and assessed during ex vivo perfusion with STEEN solution (Vitrolife) as described elsewhere. Briefly, the procedure entails cannulation of the left atrial cuff and main pulmonary artery, tracheal intubation, and ex vivo perfusion with an acellular perfusate under controlled temperature, pressure, and ventilation parameters to mimic physiologic conditions. Both at the beginning and after completion of EVLP, functional parameters such as oxygenation difference (pulmonary vein PO2 – pulmonary artery PO2), pulmonary vascular resistance, dynamic lung compliance, and airway pressures were found to be acceptable. Consequently, the lungs were deemed to be suitable for transplantation and implanted with...
Cardiac allograft failure: Retransplant or long-term ventricular assist device?

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In determining treatment for cardiac allograft failure, one consideration is that outcomes after cardiac retransplants have been reported to be inferior to those observed after primary transplants.1 In addition, the ethical dimension of the issue makes it difficult to reach a complete consensus. We report implantation of a left ventricular assist device for long-term support in a patient with cardiac allograft failure caused by coronary allograft vasculopathy.