LETTERS TO THE EDITOR

Reply to Santarpino et al.

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We thank Dr Santarpino et al. for their comments in connection with our recently published work [1, 2]. Essentially, they raise the much valid point of a potential reduction in procedural invasiveness in high-risk profile conventional aortic valve replacement (AVR).

Adequate surgical exposure with reduction in operative trauma remains the mainstay of development of minimally invasive AVR approaches. A growing body of literature addresses this at three levels: limited incisions, cardiopulmonary bypass circuit modifications and recently sutureless prostheses. We have experience with both mini-incisions and miniaturized circuits specifically for AVR in that respect [3, 4].

Although it is our belief that prolonged cross-clamp time is a surrogate marker of case complexity and intraoperative technical difficulties encountered, we agree that any attempt to reduce this would be beneficial. Interestingly, Nissinen et al. associated cross-clamp time ≤150 min with a low risk of immediate post-operative adverse events [5].

Developments in the field of transcatheter valve technologies have reinvigorated an interest in sutureless valves. Unequivocally an appealing option for demanding cases such as small and calcified aortic root/annulus or potentially complex cases where prolonged bypass and cross-clamp times are anticipated, pilot studies for sutureless AVR have shown encouraging results [6]. At present, we accept the trade-off between prolonged cross-clamp time and post-operative paravalvular leaks in conventional and sutureless AVR, respectively, as it remains to be shown that the associated cross-clamp time reduction translates in clinically improved outcomes regarding morbidity and mortality. Therefore, as with any new technology, its application should be confined within the boundaries of appropriately designed clinical trials prior to the change of conventional practice.

REFERENCES


Emergency lung transplantation contributes to knock down mortality on the waiting list
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We read with interest the manuscript from Saueressig et al. [1] entitled ‘Urgent lung transplantation in cystic fibrosis patients: experience of a French center’. This is an important paper stressing a new way to knock down mortality on the waiting list for lung transplantation. In Italy, a similar approach has been employed exactly 1 year ago, allowing us to ask for an emergency transplant (the first lung available in the whole country) for patients younger than 50 years requiring mechanical ventilation and/or extracorporeal membrane oxygenation (ECMO); non-invasive ventilation (NIV) was not a criteria for emergency allocation. We have previously stressed the importance of prioritizing patients with pulmonary hypertension (PH) on the waiting list [2]. Since the approval of the emergency list in our country, we have performed six procedures (out of 20 transplants—30%) in 1 year. The characteristics of the donors were identical to those of the group of patients receiving elective transplantation. Lungs become available after a mean of 5.8 days. All patients had cystic fibrosis but one with histiocytosis and they all received double-lung transplantation; they all had PH and they were all under mechanical ventilation with a tracheostomy and ECMO (five veno-venous and one veno-arterial). All these patients have been on NIV before further deterioration and institution of mechanical ventilation and ECMO. Four of them were weaned from ECMO in the operatory theatre, immediately after the procedure and two of them were weaned within the first 5 post-operative days. There was no operative mortality and all patients are alive after a mean follow-up of 7.3 ± 4.4 months. There was no primary graft failure and the incidence of acute rejection was in line with the rest of the transplanted population. One patient had bronchial complications requiring stenting. In this group of patients, there was a longer intensive care unit (ICU) stay and length of hospitalization. There were seven major complications in three patients, including haemothorax (2), cardiac tamponade (1), tracheo-oesophageal fistula (1), renal failure (1), abdominal bleeding (1) and femoral nerve transitory damage (1).

This emergency approach allowed us to knock down mortality on the waiting list in patients younger than 40 years: in fact, there was no pre-transplant mortality during the last year when compared with an approximate previous 20% mortality. However, although this policy dramatically changed the outcome in this specific subset of patients, it decreased the number of elective procedures, since the lungs retrieved in emergency had to be returned to the centre that had priority in the rest of the transplant population. One patient used in the elective transplant group. This could be important to justify the increased mortality rate in their series. We would also like to know if the emergency approach affected the number of elective transplants performed at their centre.