TABLE 1. Sample of long-term published studies

Valve type	Reference	Mean follow-up (y)	Maximum follow-up (y)	Determination of SVD
Biocor	Mykén and Bech-Hansen[2]	6.0 aortic, 6.2 mitral	20	Reoperation for SVD
Mitroflow	Yankah et al[3]	4.1	21	Reoperation for SVD
PERIMOUNT	Biglioli et al[4]	6	18	Prosthesis replacement for SVD
PERIMOUNT	Aupart et al[5]	5.5	18	Echocardiography indicated by mean gradient >40 mm Hg
Carpentier-Edwards S.A.V. porcine valve	Jamieson et al[6]	7.8	20	Reoperation and pathology reports from autopsy, or echocardiography in patients with reduced functional class
Hancock II	Borger et al[7]	7.4 (0–21)	20	Clinically relevant stenosis or regurgitation per echocardiographic documentation or reoperation
PERIMOUNT	Edwards LifeSciences[8]	9	20	Explant for SVD

SVD, Structural valve deterioration.

echocardiograms for all patients (because of old age and various other reasons). Studies that report freedom from all SVD generally have very few patients reported with SVD who do not undergo reoperation. It thus is most unlikely that their numbers truly reflect all SVD. In our opinion, it is more fair to report SVD leading to reoperation, because it is an objective measurement. Suyker and Leicher[1] have noted the uneven age distribution with time, with older mean age in the last decade than in the first. This reflects a trend in cardiovascular surgery in which the average age of patients receiving heart valves during the past 20 years has increased. As an example from one of your references, Aupart and colleagues[5] reported a mean age of 72.6 years in 2006. The same group had published in 1996 on the same set of patients with a mean age of 67.5 years.[9] Suyker and Leicher[1] also comment on incompleteness in our table showing long-term survival and durability outcomes (17–20 years) of large-scale (n > 1000 patients) studies of bioprosthetic heart valves for aortic valve replacement. We have never claimed that this table is complete. As pointed out in our article, it is difficult to compare outcomes in populations with differing baseline characteristics, and different reports rarely include all the same baseline characteristics. With that as a background, the table only illustrates a snapshot of the available data and was reported as such.

Again, we thank them for their interest in our publication.

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REPLY TO DIFFERENCE IN OUTCOME IN THE TRANSECTION OF THE PULMONARY ARTERY AND VEIN:

To the Editor:

We thank Dr Kamiyoshihara and colleagues[1] for bringing Dhaliwal and colleagues' study[2] to our attention. The content was both interesting and clinically relevant. Understanding that transection of the main pulmonary artery does not mandate continued resection is an invaluable piece of information, but should only be used when a patient is in extremis, warranting immediate transfer from the operating room.

We disagree with their conclusions concerning vein ligation based on their experience with a single case. Early data suggest that ligation of both the superior and inferior veins results in death.[3] However, other studies suggest

that ligation of a single pulmonary vein, either superior or inferior, may be accompanied by dilation of collateral veins to the azygous system, which may be compatible with life.[4] This area requires further study, and conclusions should not be based a single case.

In surgical emergencies, a transected main pulmonary artery does not preclude abrupt abortion of the intended surgical procedure. However, this should be used as a last resort. In elective cancer cases, a thorough inspection of all structures including artery, veins, and bronchus should be undertaken to ensure resectability before transection of any individual major structure.

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TO FENESTRATE OR NOT TO FENESTRATE

To the Editor:

In their recent article, Salazar and colleagues[1] have rightly addressed a pertinent topic. We agree that under usual circumstances a fenestration at the time of a total cavopulmonary connection should be avoided. Between June 2000 and June 2006, a total of 132 consecutive patients were treated at our institution without any fenestrations. At the time of total cavopulmonary connection, 93 patients (70%) were younger than 48 months. We continue to complete at a young age and to avoid fenestrations. We have since opted for fenestration in only 2 patients, both of whom underwent single-lung palliation.

Salazar and colleagues[1] state that they opted for fenestration only in "highly selected patients." They mention patients with elevated pulmonary vascular resistance or transpulmonary gradient, significant atrioventricular regurgitation, and single-lung physiology. We would appreciate further guidance on their selection criteria, because we would like to know their cutoff for elevated pulmonary vascular resistance and why they deem patients with atrioventricular regurgitation to be candidates for fenestration. In addition, why should any intracardiac anatomy not be amenable to an extracardiac completion? In our view, the extracardiac completion does in fact help to overcome many complex morphologic obstacles and helps make it quite easy to reroute central venous blood flow to the pulmonary vascular bed.

Salazar and colleagues[1] might also elucidate their experience with fenestration patency. Ruiz and colleagues[2] have published an intriguing concept in which the lower atrial orifice toward the divided inferior vena cava is sutured in an end-to-side fashion to the leftward aspect of the punched conduit.

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A RISK FACTOR FOR HYPERLACTATEMIA AFTER SURGICAL REPAIR OF SECUNDUM ATRIAL SEPTAL DEFECT IN CHILDREN: WHAT IS THE PROBLEM?

To the Editor:

We read with great interest the article by Abraham and colleagues.[1] They report their results of a retrospective study on the intraoperative risk factors for early postoperative hyperlactatemia in patients undergoing atrial septal defect repair. Multivariate logistic regression analysis showed that lower cardiopulmonary bypass (CPB) flow rate is an independent risk factor for early postoperative hyperlactatemia in children after atrial septal defect repair. It has instructive significance for the perfusionist to maintain higher mixed venous saturations and use vasodilators during CPB to improve overall tissue perfusion.

The study includes 68 patients with atrial septal defect, Risk Adjustment for Congenital Heart Surgery category I, who had good cardiac output in the postoperative period. This effectively avoids the influence of confounding factors on blood lactate, such as the CPB temperature, hemodilution, duration of CPB, cardiac function, drugs used perioperatively, liver and kidney function, and so forth. The design is a benefit for the study of the correlation simply between intraoperative factors and postoperative hyperlactatemia. However, several other factors that influence the blood lactate should be considered.

The subjects have atrial septal defect and are aged less than 21 years (range, 5–201 months). The age span is comparatively large because there is a big difference in the CPB prime and management between those aged 5 months and those aged 201 months. Generally, children aged less than 1 year would be primed with banked red blood cells and have comparatively more banked blood perioperatively. Banked blood itself, which