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Reply to the Editor:

We appreciate Ricci's interest in our article,¹ which describes the application of a "modified" central cannulation technique² and open proximal anastomosis technique for surgical repair of aortic coarctation in an adult. We understand Ricci's concern that circulatory arrest to perform open proximal anastomosis is not free from complications. Our strategy of cannulation and cardiopulmonary bypass support for aortic coarctation in an adult is based on our previous experience that aortic injury was caused by crossclamping, in which the portion of coarctation was just distal to the left subclavian branch. As Ricci mentioned in his letter, our proposal of this strategy is based on a single observation; however, it seems safer to use an open proximal anastomosis technique to avoid possible aortic injury not only with crossclamping but also with reliable deep stitches in sufficient sight.

We recently used the same strategy in an operation for distal arch and descending aortic aneurysm. We experienced no technical or clinical problems; therefore, we agree with Ricci that this strategy can serve as a valuable adjunct in patients undergoing complex repairs and reoperations of the distal arch and descending aorta.³⁻⁵

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Mitral valve replacement by a Gore-Tex reinforced pulmonary autograft in a child

To the Editor:

We read the interesting case report entitled "Mitral valve replacement by a Gore-Tex reinforced pulmonary autograft in a child" in the October issue of the *Journal*.¹ The Ross II procedure is not widely used in cardiac surgical practice because of the technical difficulties. There are also many arguments concerning this procedure.² There might be complications such as constriction and deformation on the mitral position of the pulmonary autograft. Therefore, lengthwise and crosswise reinforcements of the pulmonary autografts might be needed. The procedure is possible with the use of Dacron or polytetrafluoroethylene (Gore-Tex; W. L. Gore & Associates, Inc, Flagstaff, Ariz) grafts.

For pediatric patients with a small mitral annulus, the Ross II procedure is indicated. We performed the Ross II procedure in a child with congenital mitral insufficiency and endocarditis. The mitral leaflets were totally deformed, so we resected them. The mitral annulus was 14 mm in diameter. We decided to replace the mitral valve with a pulmonary autograft because of the endocarditis and the absence of an adequately sized mechanical mitral valve prosthesis. After the pulmonary autograft was harvested, it was introduced into the 14-mm diameter soft Dacron tube graft by the same method that the authors used. Because the left atrium was very large, a Dacron graft carrying the pulmonary autograft was sutured to the mitral annulus by

using the "top hat" technique.³ However, perioperative transesophageal echocardiography performed after cardiopulmonary bypass revealed a 25 mm Hg transmitral gradient. We decided to reinstitute cardiopulmonary bypass and reevaluate the composite pulmonary autograft. After cardioplegic arrest, the left atrium was reopened, and the Dacron graft was found to be constricted and deformed. Therefore the Dacron graft was replaced with a 14-mm diameter polytetrafluoroethylene (Gore-Tex) tube graft. This time there was no significant transmitral gradient.

We believe that stiff Dacron grafts used for the reinforcement of pulmonary autografts may yield better results than soft ones. We recommend the use of polytetrafluoroethylene (Gore-Tex) tube grafts in the Ross II procedure instead of the Dacron grafts that Yamagushi and colleagues¹ used.

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Reply to the Editor:

My colleagues and I appreciate the thoughtful comments of Dr Tireli. In children, the top hat method¹ is limited to selected patients with a large left atrium. The implanted graft, which over-protrudes into the left atrium, carries a risk of pulmonary venous obstruction and may impair the reservoir effect of the left atrium. The top hat method is relatively easy during the