ure 1, C) can be carried out with neither clamping time limits nor significant hemodynamic changes.

We prefer not to reestablish the prosthetic continuity of the right brachiocephalic trunk with the "atrial" SVC stump because the upper body district venous blood sharing between 2 prosthetic conduits might enhance reduced blood velocity in one of them and its possible thrombosis and infection (3/6 cases of double prosthetic conduits SVC reconstruction in our series).

Obviously, in those infrequent cases in which the SVC can still be patch repaired but the lesion is too extended to allow tangential clamping, the polytetrafluoroethylene graft is kept only temporarily³ and then removed after SVC reconstruction is completed.

Moreover, even in those cases in which it seems appropriate to site the distal anastomosis on the SVC, the clamping time can be reduced to half if the conduit is first anastomosed to the right atrial appendage instead of to the proximal SVC stump.

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References

1. Leo F, Grazia LD, Tullii M, Gasparri R, Borri A, Venturino M, et al. Hemodynamic instability during superior vena cava crossclamping: Predictors, management, and clinical consequences. *J Thorac Cardiovasc Surg.* 2007;133:1105-6.
2. Nazari S, Moncalvo F, Zonta A, Prati U, Jemos V. Temporary intraluminal bypass for superior vena cava reconstruction after cancer invasion. *Thorac Cardiovasc Surg.* 1988; 36:5-9.

3. Suzuki K, Asamura H, Watanabe S, Tsuchiya R. Combined resection of superior vena cava for lung carcinoma: prognostic significance of patterns of superior vena cava invasion. *Ann Thorac Surg.* 2004;78:1184-9.

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Reply to the Editor:

We thank Drs Rossella and Nazari for their technical comments on the possibility of reconstructing the superior vena cava (SVC) without the need of crossclamping by connecting one brachiocephalic vein (BCV) to the right atrial appendage. It represents an interesting alternative by avoiding temporary SVC occlusion, but we still prefer SVC crossclamping for 3 reasons.

First, in our experience, SVC reconstruction with the BCV stump is at higher risk of thrombosis. We recently reported our experience with 70 cases of SVC resection from 1998 through 2004.¹ Of the 25 complete prosthetic replacements, 6 thromboses were recorded, and 4 of them (66%) were in patients with BCV reconstruction. Possible explanations are the length of the prosthesis, the limited diameter of the BCV, and the discrepancy between SVC and BCV calibers. At present, our indication for BCV reconstruction is limited to situations in which an alternative is not feasible.

Second, hemodynamic instability occurring at SVC crossclamping is a limited problem as long as anesthetists are aware of methods to overcome it.² It is a frequent event (30%) that can be managed in almost all cases with aggressive resuscitation maneuvers. Intraoperative hypotension by itself should not stop the operation unless corrective maneuvers are unsuccessful (5% of cases). On the other hand, in our experience right atrial appendage clamping can also cause intraoperative patient instability

through the occurrence of supraventricular arrhythmias.

Third, our preference for an SVC prosthesis is the use of bovine pericardium,³ which is a reliable material, even in the context of pulmonary artery reconstruction.⁴ In case of sternotomy or a transnubial approach, such a prosthesis on the left BCV might become occluded by manubrial compression at sternal closure. When a left BCV reconstruction is required, we prefer a ringed polytetrafluoroethylene prosthesis.

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References

1. Spaggiari L, Leo F, Veronesi G, Solli P, Galetta D, Tatani B, et al. Superior vena cava resection for lung and mediastinal malignancies: a single-center experience with 70 cases. *Ann Thorac Surg.* 2007;83:223-30.
2. Leo F, Della Grazia L, Tullii M, Gasparri R, Borri A, Venturino M, et al. Hemodynamic instability during superior vena cava crossclamping: predictors, management and clinical consequences. *J Thorac Cardiovasc Surg.* 2007;133:1105-6.
3. Spaggiari L, Veronesi G, D'Aiuto M, Tosoni A. Superior vena cava reconstruction using heterologous pericardial tube after extended resection for lung cancer. *Eur J Cardiothorac Surg.* 2004;26:649-51.
4. Galetta D, Veronesi G, Leo F, Spaggiari L. Pulmonary artery reconstruction by a custom-made heterologous pericardial conduit in the treatment of lung cancer. *Lung Cancer.* 2006; 53:241-3.

doi:10.1016/j.jtcvs.2007.07.003