Patients with AML prolapse due to Barlow disease were managed using the parachute technique in our study. For those patients with extreme excess of tissue, our initial strategy was triangular resection to eliminate some of the tissue and parachute for treating the prolapse. However, triangular resection was completely abandoned for the most recent patients. As an alternative, we have started to crimp excess tissue on the Dacron cloth, which has further simplified and accelerated the correction of AML prolapse.

Konstantinos Zannis, MD
Laurens Mitchell-Heggs, MD
Département de Pathologie
Cardiaque
Institut Mutualiste Montsouris
Paris. France

#### References

- Zannis K, Mitchell-Heggs L, Di Nitto V, Kirsch ME, Noghin M, Ghorayeb G, et al. Correction of anterior mitral prolapse: the parachute technique. J Thorac Cardiovasc Surg. 2012; 143(4 Suppl):S24-8.
- Adams DH, Rosenhek R, Falk V. Degenerative mitral valve regurgitation: best practice revolution. *Eur Heart J.* 2010;31:1958-66.
- Adams DH, Anyanwu AC, Rahmanian PB, Abascal V, Salzberg SP, Filsoufi F. Large annuloplasty rings facilitate mitral valve repair in Barlow's disease. *Ann Thorac Surg.* 2006;82: 2096-101.
- Barlow JB, Pocock WA. The significance of late systolic murmurs and mid-late systolic clicks. Md State Med J. 1963:12:76-7.
- Barlow JB, Pocock WA. Billowing, floppy, prolapsed or flail mitral valves? Am J Cardiol. 1985; 55:501-2.
- Carpentier A, Chauvaud S, Fabiani JN, Deloche A, Relland J, Lessana A, et al. Reconstructive surgery of mitral valve incompetence: ten-year appraisal. *J Thorac Cardiovasc Surg*. 1980;79:338-48.

http://dx.doi.org/10.1016/ j.jtcvs.2012.06.033

# THE EFFECT OF INNOMINATE CANNULATION ON CEREBRAL PERFUSION To the Editor:

We congratulate Shi and colleagues<sup>1</sup> on their study, "Repair of Stanford Type A Aortic Dissection With Ascending Aorta and Hemiarch Replacement Combined With Stent-Graft Elephant Trunk Technique by Using Innominate Cannulation." In this study, the flow in the innominate artery during total body perfusion was toward the arcus aorta. During cerebral perfusion, the flow rate was 8 to 10 mL/(kg · min). Transient neurologic deficit occurred in 10 patients, which indicates that this situation is not a focal event but is related to perfusion defect. Urbanski and associates<sup>2</sup> pointed out that pressure monitoring is mandatory and explained the complications arising from low perfusion. During total body perfusion, the direction of flow is toward the arcus aorta, which causes Venturi effect in the cerebral bed and affects the cerebral perfusion. We conclude that this technique may cause neurologic complications. We think if pressure monitoring were to be instituted, this problem could be predicted.

Sahin Bozok, MD<sup>a</sup>
Mert Kestelli, MD<sup>b</sup>
Hakan Karamustafa, MD<sup>a</sup>
Sedat Ozan Karakisi, MD<sup>a</sup>

<sup>a</sup>Department of Cardiovascular
Surgery
Rize University Faculty of Medicine
Rize, Turkey

<sup>b</sup>Department of Cardiovascular
Surgery
İzmir Ataturk Training and Research
Hospital
İzmir, Turkey

### References

- Shi E, Gu T, Yu L, Xiu Z, Zhang Z, Wang C, et al. Repair of Stanford type A aortic dissection with ascending aorta and hemiarch replacement combined with stent-graft elephant trunk technique by using innominate cannulation. J Thorac Cardiovasc Surg. 2011;142:1458-63.
- Urbanski PP, Lenos A, Zacher M, Diegeler A. Unilateral cerebral perfusion: right versus left. Eur J Cardiothorac Surg. 2010;37:1332-6.

http://dx.doi.org/10.1016/ j.jtevs.2012.03.086

#### **Reply to the Editor:**

We thank Bozok and colleagues for their insightful comments on the technique of innominate artery cannulation during surgical repair of Stanford type A aortic dissection, as described in our recently published article.<sup>1</sup>

Cannulation of the innominate artery directly<sup>2</sup> or with a side graft<sup>3</sup> has been shown to be a simple and effective alternative in aortic arch surgery. In our series, 10 patients showed transient neurologic dysfunction, and in most cases this was simple confusion lasting less than 48 hours. No permanent neurologic dysfunction occurred. Transient neurologic dysfunction such as confusion is a frequent complication after cardiac surgery, especially among aged patients. We do not think that our results for brain protection are bad. During total body perfusion, the brain can be perfused through the left carotid artery as well as the right carotid artery. Therefore innominate artery cannulation is safe during surgical repair of Stanford A aortic dissection. We also agree, however, that pressure monitoring makes cerebral perfusion more accurate.

Enyi Shi, MD, PhD
Tianxiang Gu, MD, PhD
Department of Cardiac Surgery
First Affiliated Hospital
China Medical University
Shenyang, China

#### References

- Shi E, Gu T, Yu L, Xiu Z, Zhang Z, Wang C, et al. Repair of Stanford type A aortic dissection with ascending aorta and hemiarch replacement combined with stent-graft elephant trunk technique by using innominate cannulation. *J Thorac Cardiovasc Surg.* 2011;142:1458-63.
- Ji S, Yang J, Ye X, Wang X. Brain protection by using innominate artery cannulation during aortic arch surgery. *Ann Thorac Surg.* 2008;86: 1030-2.
- Huang FJ, Wu Q, Ren CW, Lai YQ, Yang S, Rui QJ, et al. Cannulation of the innominate artery with a side graft in arch surgery. Ann Thorac Surg. 2010;89:800-3.

http://dx.doi.org/10.1016/ j.jtcvs.2012.05.062

## **ALCOHOL AND ADHESIONS To the Editor:**

The recent article by Lassaletta and colleagues<sup>1</sup> fascinated me, just as did