flow only goes in the desired direction.^{3,4} (See Figure 1.) Otherwise, the venous backflow can make one regret ever having constructed the fistula (especially if venous pressure is high). The authors imply frequent use of the Cabrol fistula to control bleeding in their endograft series. They have developed their own technique for closing the transverse cardiac sinus to optimize benefit from the Cabrol fistula (preventing blood from escaping from the Cabrol fistula and draining into the pericardium).⁵ Widespread application of the Cabrol fistula is not necessarily bad, but one wonders what shortcomings may be hidden in potential chronic, persistent Cabrol internal “drainage” (with left-to-right shunting).

The authors have created an imaginative stent. Median-term follow-up will show if the head vessel stents can rival a sutured anastomosis. Clinical and radiologic surveillance

will determine if the novel stent graft controls the dissection process.

Congratulations to the authors on their creativity and their excellent clinical results.

References

1. Elefteriades JA. What operation for acute type A dissection? *J Thorac Cardiovasc Surg.* 2002;123:201-3.
2. Xie X-B, Dai X-F, Fang G-H, Qiu Z-H, Jiang D-B, Chen L-W. Extensive repair of acute type A aortic dissection through a partial upper sternotomy and using complete stent-graft replacement of the arch. *J Thorac Cardiovasc Surg.* 2022;164:1045-52.
3. Elefteriades JA, Youssef S, Rousou L, Nazer R. Novel valved graft modification of Cabrol fistula for bleeding after aortic root surgery. *Ann Thorac Surg.* 2012;94:1741-3.
4. Elefteriades JA. Mechanism to valve a Cabrol fistula for bleeding control. *Aorta (Stamford).* 2013;1:65-6.
5. Chen LW, Wu XJ, Dai XF. Transverse pericardial sinus closure in acute type A aortic dissection operation. *Ann Thorac Surg.* 2017;104:e351-3.

See Article page 1045.

Check for updates

Commentary: Is the type of chest opening the main problem in surgery for acute type A aortic dissection?

Jean Bachet, MD, FEBCTS

In their article in this issue of the *Journal*, Xie and co-workers¹ report on a particularly rare and surprising experience of surgical repair of acute type A aortic dissection. Their report raises several important questions.

The authors describe procedures in which type A dissections were systematically repaired using a 3-branched stent-

Conventional sternotomy: Best approach for treating any acute type A aortic dissection.

CENTRAL MESSAGE

In surgery for acute type A dissection, the safest possible techniques should be used to address both expected and unexpected difficulties. Can this be achieved through limited approaches?

graft placed in the proximal descending aorta, the aortic arch, and the supra-aortic vessels and associated with a conventional prosthetic replacement of the ascending aorta with or without root repair. This is the first surprise. Indeed, even though trifurcated prosthetic grafts associated with a

From the Association Pour le Développement et l'Amélioration des Techniques de Dépistage et de Traitement des Maladies Cardiovasculaires (ADETEC), Suresnes, France.

Disclosures: The author reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

Received for publication Nov 4, 2020; revisions received Nov 4, 2020; accepted for publication Nov 5, 2020; available ahead of print Nov 19, 2020.

Address for reprints: Jean Bachet, MD, FEBCTS, ADETEC, 1 Place Marcel Legras, 92150 Suresnes, France (E-mail: jean.bachet@yahoo.fr).

J Thorac Cardiovasc Surg 2022;164:1056-7

0022-5223/\$36.00

Copyright © 2020 by The American Association for Thoracic Surgery

<http://dx.doi.org/10.1016/j.jtcvs.2020.11.019>

distal stent graft are presently commercially available and are being increasingly used in surgery of the aortic arch, according to the “frozen elephant trunk technique”, this is not the most frequent type of repair of dissections worldwide. Trifurcated stent-grafts are quite rare in the present surgical armamentarium, and their systematic use as described by the authors seems rather exceptional.

However, the main focus of the article is on comparing 2 approaches to entering the patient’s chest to perform the repair: conventional sternotomy (142 patients) and partial upper sternotomy down to the fourth intercostal space (112 patients). After using propensity score matching to compare the postoperative results in the 2 groups, they conclude that partial upper sternotomy is feasible and safe and “would be a superior technique compared to conventional sternotomy” Is that so?

The data reported for the 2 groups, both for the whole cohorts and after propensity score matching, show that all postoperative results were identical or very similar and not statistically different. Moreover, the in-hospital mortality rate was similar in the 2 cohorts (9% and 8%). The only differences were in the amounts of mediastinal drainage and red blood cell transfusion, (but this difference was only ~300 cc) and in the postoperative ventilation duration (mean 49 hours vs 42 hours). Do these differences justify use of the limited approach?

The authors indicate that the partial sternotomy technique is known to have “the advantages of better cosmetic results and minor trauma and also of less serious postoperative pain and quicker postoperative recovery.” Concerning emergency surgery of acute type A dissection, this seems

more or less relevant. Most patients are men in their 60s, 70s, or older with a life-threatening disease. The cosmetic problem (if any) does not seem to be in the forefront of their and the surgical team’s concerns.

Similarly, the authors indicate that one advantage of the partial sternotomy is a lower risk of postoperative pulmonary problems and complications. This may be true, although with the partial sternotomy technique, 1 or both pleura could be inadvertently opened. But again, this is not the major problem after surgery of acute type A dissection. Most postoperative complications or deaths are linked not to pulmonary problems, but rather to difficult repair, weakness of the dissected tissues, severe organ malperfusion, bleeding, multiorgan failure, and other factors.

Emergent repair for acute type A aortic dissection is certainly one of the most difficult and demanding procedures in adult cardiovascular surgery. The widely variable anatomic, physiological, and pathological conditions of the patients mandate that the safest possible techniques be planned and used to address the known and expected difficulties, as well as possible unexpected intraoperative complications. This requires an approach to the whole heart, the proximal aorta, the supra-aortic vessels (as distally as necessary), and the proximal descending aorta—as provided by total conventional sternotomy.

Reference

1. Xie XB, Dai XF, Fang GH, Qiu ZH, Jiang DB, Chen LW. Extensive repair of acute type A aortic dissection through a partial upper sternotomy and using complete stent-graft replacement of the arch. *J Thorac Cardiovasc Surg.* 2022; 164:1045-52.