The Heart Surgery Forum #2017-1907
20 (5), 2017 [Epub October 2017
doi: 10.1532/HSF98.20171907

LETTER TO THE EDITOR

Franjo Rudman, MD, PhD,[1] Davor Barić, MD, PhD,[2] Daniel Unić, MD, PhD,[2] Igor Rudež, MD, PhD[2]

Departments of [1]Plastic, Reconstructive, and Aesthetic Surgery and [2]Cardiac and Transplant Surgery, University Hospital "Dubrava," Zagreb, Croatia

We read with great interest the report by Dr. Colak and coworkers about utilization of omentoplasty in poststernotomy mediastinitis treatment [Colak 2016]. In our opinion, several points need to be addressed.

In the abstract, the authors state that all patients continued to have purulent leaks after omentoplasty from 4 days postoperatively up to 11 days postoperatively. This data does not appear in the rest of the paper, so it is to assume either insufficient debridement was performed, or the reconstruction was premature. The initial treatment of mediastinitis should be with debridement and application of topical negative pressure wound therapy (TNP), preferably with irrigation for a few days, and then the additional debridement and reconstruction is performed because such treatment provides better survival [Baillot 2010; Cotogni 2015]. Indeed, the report by Morisaki and coworkers [Morisaki 2016] provides us with data that the best survival is achieved with initial treatment with TNP followed by the reconstruction with flap.

Furthermore, the authors [Colak 2016] state that the sternum was closed after omentum was placed in the mediastinum. In our experience, there is almost no space in the mediastinum after sternal closure, especially for thicker omentum if the sternum was not at least partially removed. There could be problems with compression of omentum if the sternum was closed over it, as well as circulation problems, most notably venous congestion. We use omental flap after sternal resection to cover the mediastinum, to fill the sternal defect, and to reduce the possibility of sternal reinfection. Omental flap is useful in reconstruction because it carries immunologic properties, can fill the deepest recesses and the large defects, and is considered to be superior to muscle flaps [Hultman 2001]. Therefore, omental flap is very useful, if not irreplaceable in certain indications of sternal reconstruction, most notably after sternal resection especially the lower third of sternum.

Received September 12, 2017; accepted September 21, 2017.

Correspondence: Franjo Rudman, M.D. Ph.D., Department for Plastic, Reconstructive and Esthetic Surgery, University Hospital Dubrava, Av. G. Šuška 6, 10000 Zagreb, Croatia, +385 1 290 3831, 290 2569, fax. +385 1 290 2451 (email: frudman@dr.com)

REFERENCES

Baillot R, Cloutier D, Montalin L, et al. 2010. Impact of deep sternal wound infection management with vacuum-assisted closure therapy followed by sternal osteosynthesis: a 15-year review of 23,499 sternotomies. Eur J Cardiothorac Surg 374:880-7.

Colak A, Kaya U, Ceviz M, Becit N, Sevil F, Kocak H. 2016. Utility of omentoplasty in mediastinitis treatment following sternotomy. Heart Surg Forum 19:E265-8.

Cotogni P, Barbero C, Rinaldi M. 2015. Deep sternal wound infection after cardiac surgery: evidences and controversies. World J Crit Care Med 44:265-73.

Hultman CS, Culbertson JH, Jones GE, et al. 2001. Thoracic reconstruction with the omentum: indications, complications, and results. Ann Plast Surg 463:242-9.

Morisaki A, Hosono M, Murakami T, et al. 2016. Effect of negative pressure wound therapy followed by tissue flaps for deep sternal wound infection after cardiovascular surgery: propensity score matching analysis. Interact Cardiovasc Thorac Surg 233:397-402.