Reply to the Letter to the Editor

Reply to Totaro et al. and Szerafin et al.

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The comments of Totaro et al. [2] and Szerafin et al. [3] are extremely valuable and demonstrate the evolution to a more uniform treatment for poststernotomy mediastinitis. Recognizing the subgroups as described by both authors followed by a well defined surgical strategy will offer the best results for this difficult problem. In view of our published results [1] we also changed to a two stage procedure in unstable patients. Initially open wound dressing will be performed in those patients, followed by closure with omentum and/or muscle flap in a second stage. The time frame between the two procedures is determined by the local aspect of the wound and the general status of the patient.

References


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Letter to the Editor

Retrograde extension of type B dissection after endovascular stent graft repair

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I read with great interest the case report by Totaro et al. “Emergency surgery for retrograde extension of type B dissection after endovascular stent graft repair” [1]. The authors report a new and severe complication following endovascular stent graft repair in acute type B aortic dissection. Recently we operated on a patient with a similar diagnosis, although it occurred 4 months after implantation of the stent graft.

A 64-year-old patient with a history of hypertension was admitted to our hospital complaining of chest pain. Four months prior, he underwent endovascular stent graft repair of the descend-

Fig. 1. Preoperative computed tomography scan shows a dissection with an extensive false lumen in the ascending aorta (interrupted arrow), a narrow sickle-shaped false lumen starting at the proximal end of the endovascular stent graft (two arrows) in the descending aorta (A), and a complete dissection of the aortic arch (B).
ing aorta because of an acute type B dissection. Computed tomography of the chest showed a retrograde dissection of the thoracic aorta, beginning at the upper end of the endovascular stent, and extending into the aortic arch and the ascending aorta (Fig. 1). The echocardiography revealed moderate aortic regurgitation.

In an emergency procedure, the dissected wall of the ascending aorta and the aortic arch was excised. The Sinus of Valsalvae were reconstructed preserving the aortic valve. The ascending aorta and the aortic arch were completely replaced by a collagen-coated Dacron tube and the supraaortic vessels were reimplanted into the graft. The distal anastomosis was executed using the elephant trunk technique. No surgical glue was used. The elephant trunk graft was long enough to reach the proximal end of the stent graft and therefore led to obliteration of the false lumen in this part of the descending aorta as demonstrated by the postoperative computed tomography scan (Fig. 2). The postoperative echocardiography showed a competent aortic valve. The postoperative course was uneventful and the patient was discharged home in good condition.

An acute type B aortic dissection bears the risk of retrograde extension resulting in a conversion to a type A dissection. The case reported by Totaro et al. and our case demonstrate that the risk of retrograde dissection persists even after implantation of an endograft and exclusion of the intimal tear. It is not clear, whether the retrograde dissection after an endovascular stent graft repair is a true complication of the procedure or a progredient dissection. From a surgeon’s point of view, it is important to know that an acute retrograde aortic dissection after initial type B dissection may occur during, shortly after, or even late after the implantation of an endovascular stent graft. As there is no new entry in the proximal aorta, this complication has to be treated by a surgical procedure aimed at the complete resection of the dissected aortic segments and, if this is technically impossible, by obliteration of the remaining false lumen. The elephant trunk technique seems to be particularly useful in this type of dissection.

References

Reply to Urbanski

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We appreciate the letter by Urbanski and we congratulate him on the brilliant operation he performed. Anyhow, we think it is important to point out that in the case we reported...