LETTER TO THE EDITOR RESPONSE

Reply to Tossios et al.

Maximilian Pichlmaier*, Christian Hagl and Nawid Khaladj

Department of Cardiac Surgery, University Hospital Munich, Munich, Germany

* Corresponding author. Department of Cardiac Surgery, University Hospital Munich, Marchioninistr. 15, 81377 München, Germany. Tel: +49-89-70952930; fax: +49-89-70958898; e-mail: maximilian.pichlmaier@med.uni-muenchen.de (M. Pichlmaier).

Received 3 September 2013; accepted 5 September 2013

Keywords: Graft infection • Omentum flap • Debridement • Replacement

Tossios et al. [1] have acknowledged that our small series of 17 patients, consecutively treated for graft infection exclusively with complete removal of the graft and redo replacement using cryopreserved human allografts/homografts, is presently one of the larger contemporary series of its kind [2]. Despite the considerable mortality, the results compare favourably with most other reports where grafts have been replaced in infection. However, in their comment they raise an important issue which has not yet been resolved. Thus, the quoted series where the infected graft was explicitly not removed but an extensive debridement performed and an omentum or muscle flap or both inserted in order to control the infection process has yielded clearly better immediate results at least in terms of mortality. It is, therefore, argued to be the safer procedure.

We would like to raise three issues here. First of all, many people would support that by leaving the infected graft, especially if the process does not start as a sternal wound infection, it is possible to control infection but the process is never entirely eradicated (lifelong antibiotics in many cases). Thus, not one of the series, most of which date back to the 1990s, propagating an alternative technique to complete removal, provides adequate follow-up which in analogy with, for example, infrarenal vascular graft infection, chronic pacemaker lead endocarditis or chronically infected orthopaedic implants would be required to conclude that the infection has successfully been eradicated [3–5]. Thus, in all the latter examples, graft/implant removal has conclusively been shown to be mandatory. Secondly, it is not at all uncommon to find that in extensive infection of vascular grafts in the position described, the suture lines themselves are involved by the infectious process, especially if they have been reinforced with felt, and may either disintegrate on the attempt of extensive debridement or else the felt is likely to maintain smouldering infection despite all the debridement and secondary coverage leading eventually to anastomotic disruption. This is also mentioned in the work by Coselli quoted in the letter. The third issue plays less of a role in the acute setting and may, however, become relevant in the long run. This is the fact that another redo operation to deal, for example, with later valvular problems if indeed infection should have been completely eradicated becomes not merely a challenge but simply impossible for the extent of adhesions and scarring that follows, e.g. the insertion of an omentum flap. Homografts, on the other hand, do offer the redo option as we have learned from the large root replacement series and more importantly, the valve may nowadays be treated by interventional means [6]. Homograft aortas in our experience rarely degenerate to the extent that they need to be addressed again.

Overall, we acknowledge that there are alternatives to the technique we propose and this is neither surprising nor unknown to us. However, we feel it is unjust to directly compare our results with the far more conservative approach which has, in our opinion, in itself a different therapeutic goal as outlined above. It may be added that we have since treated another 4 patients using the same strategy with no mortality which makes the overall mortality in the running series drop to a current 19%.

Conflict of interest: none declared.

REFERENCES