We read with interest the paper of Siniawski et al. on the treatment of aortic root abscess and secondary infective mitral valve disease [1]. We would like to congratulate them on their excellent results and a very interesting paper.

In the treatment of severe aortic endocarditis and even more with aortic root damage following prosthetic aortic valve endocarditis (PVE), we believe that there is an alternative to homografts.

Although aortic homografts have generally been considered as first choice substitute material in such patients given their supposedly greater resistance to infections compared to prosthetic valves, however, persistent infections have been reported after homograft replacement [2]. Furthermore, homografts may not be adapted to reconstruct a severely damaged aortic root. Moreover, they are fraught with high early calcification rates and the problems of availability. The favourable results of endocarditis treated with prosthetic material [2,3] question the absolute necessity of employing biological grafts in the treatment of infectious endocarditis and advocate the use of prosthetic material with comparable results [4].

We recently published a 22 year experience of translocation of the aortic valve permitting surgical repair of ventriculo-aortic disconnection and aortic root damage following PVE in 21 patients [5].

We believe that the key to success lies in appropriate debridement of all infected tissue that we liken to the principles of ‘cancer surgery’ where the maximum of necrotic and infected tissues is resected. The use of prosthetic material can be employed on the condition that it be distanced from the focus of the infection, thus ‘translocation’ of the valve prosthesis in an aortic tube. The latter is necessary to reconstruct the left ventricular outflow tract and provides secure positioning of the valve prosthesis.

We emphasize that this technique is reserved for patients with extensive annular destruction and sub-annular abscesses after failure of conventional methods and can be used as an alternative to homografts whenever these are unavailable.

References

Reply to the Letter to the Editor

Reply to Al-Attar et al.

Risk factors influencing outcome after surgical treatment of destructive endocarditis

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We thank Drs Al-Attar et al. for their positive reaction to our article. Our constant aim is to further improve the results of surgical treatment during ongoing endocarditic infection accompanied by aortic root destruction. We believe that there are three main possibilities of achieving this.

First and foremost, early operation is of the essence and accurate preoperative diagnosis is essential to optimize the timing. We found that double-valve disease usually spreads from the aortic valve to the mitral valve when aortic valve infection with the potential danger of spread to the mitral valve is not recognized early enough. Prompt recognition often means that only the aortic valve requires surgical attention. In our most recent work, the following predisposing factors for mortality were identified: septic shock (OR 3.44, CI 0.85–13.9) and false diagnosis (unrecognized root abscess with severe damage) in the referring hospital (OR 3.44, CI 0.85–13.9) and false diagnosis (unrecognized root abscess with severe damage) in the referring hospital (OR 3.44, CI 0.85–13.9) and false diagnosis (unrecognized root abscess with severe damage) in the referring hospital.

Secondly, valve selection plays an important role in preventing reinfection after operation. While there is no ideal infection-resistant valve prosthesis, in our experience the best choice at present is the homograft or the Shellhig No-React prosthesis.

Thirdly, the choice of the optimal surgical valve replacement technique will always greatly influence the result achieved when severe damage means that valve reconstruction is not possible.

Dr Al-Attar and colleagues reported their favorable experience with translocation of the aortic valve for severe prosthetic valve endocarditis, ventriculo-aortic disconnection and aortic root abscess. The surgical technique used means that the coronary ostia are closed. Theoretically, there is a possible life-threatening complication because the myocardial blood supply is entirely dependent on a venous bypass while the coronary ostia are oversewn. This was already published by Danielson in the early 1970s—see book chapter by Hetzer et al. [1] where a case is illustrated.

We agree that inadequate excision of the infected local tissue during operation can cause the surgical procedure to fail. Therefore, excision of the infected part of the aortic wall and debridement of all infected adjacent tissue is essential regardless of the surgical technique or type of material used. We congratulate the colleagues from France on their excellent results. At our institution we have not used this technique, but prefer to use the ‘abscess exclusion’ technique as presented by Klosalla et al. [2].

References


Letter to the Editor

Arterial versus vein graft patency in coronary artery bypass grafting patients with ischemia-directed repeat angiography

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We read with great care and interest the recent article by Dr Shah and colleagues in the May 2005 issue of EJCTS [1]. First, we concur with the authors that the issue of appropriate location of the internal thoracic artery (ITA) graft is probably underutilized by surgeons as is implied in their title. The >93% arterial grafting in their re-angiography coronary artery bypass grafting (CABG) series indicates a high quality