and arch levels and can even be used for the treatment of mycotic aneurysms, with the increasing experience and refinements in the graft technology [2]. However, graft infection still accounts for one of the major risks in the follow up, although the procedure promises very good early results [1–4].

At our institution, two patients who were considered unsuitable for surgical treatment due to multiple comorbidity factors, had undergone endoluminal stent graft treatment of mycotic saccular aneurysms at the aortic arch. Unfortunately, one of the patients died 1 week postoperatively due to intracerebral bleeding. On the other hand, the second patient who was on chemotherapy for acute lymphoblastic leukemia, additionally had ankylosing spondilitis and chronic hepatitis B infection. He had also been uneventful in the early postoperative period [2] as well as for a postoperative period of 18 months until he presented with rupture of the descending aorta from the region at the end of the stent graft (Suppl. 1). He had undergone another successful stent graft implantation for the treatment of the aortic rupture (Suppl. 2) and was discharged to the hematology clinic with a life-long antibiotic regimen recommendation with co-trimoxazole. He had been followed asymptomatic for another 1-year period but died due to complications of acute lymphoblastic leukemia [4]. Parkinson et al. [3] in their recent paper presented a similar case with peripheral seeding of mycotic aneurysm from an infected aortic stent graft. Their patient had been asymptomatic for 3.5 years following initial treatment [3].

In conclusion, close monitoring of the patients who were treated for mycotic aneurysms with endoluminal measures is mandatory because they may frequently present with future aneurysms and ruptures at various segments of arterial tree. Additionally, since prophylactic life-long antibiotic treatment seems to be protective to a certain degree against future complications of mycotic aneurysms, in order to reach a consensus about postoperative treatment strategy it would be helpful to determine the best antibiotics if every author could present their experiences and recommendations about prescribed antibiotics for such cases.

References


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Reply to the Letter to the Editor

Reply to Ugurlucan and Alpagut

Endovascular management of a descending thoracic mycotic aneurysm: Mid term follow-up

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I would like to thank Ugurlucan and Alpagut [1] for their valuable comments regarding the management of thoracic mycotic aneurysms using endovascular technology. Endoluminal stent grafting of the aorta has increasingly been applied to treat various aortic pathologies including mycotic aneurysms. Results of open surgical repair consisting of intensive antibiotic administration, extensive excision and debridement of the infected field associated with extranatomic or in situ prosthetic bypass grafting are associated with mortality rates ranging from 5% to 75% [2,3]. Endovascular approach to mycotic aneurysm avoids the extensive excision and debridement of the infected field. The potential benefit of the endovascular approach is thus compared to the obvious risk of recurrence of the infection. We have had experience with the management of two patients with suspected mycotic aneurysms. In both cases an identifiable organism was cultured from the blood stream. Antibiotics must be tailored to the offending organism and preferably blood cultures should be negative before planning to treat such patients with an endoluminal graft. Some authors have suggested presoaking the graft in an antibiotic solution before deploying an endoluminal graft to exclude a suspected mycotic aneurysm. An extended zone proximal and distal to the aortic wall abnormality should be chosen because of the likelihood of more extended arterial lesions. The duration of antibiotic coverage remains controversial. The duration of antibiotic therapy remains debatable as some authors have used a short course of antibiotics ranging from 6 weeks to 6 months with other authors using life-long antibiotics [4,5]. At our institution we are of the belief that antibiotic coverage should be tailored to the patient’s general condition, blood culture results, sedimentation rate, presence or absence of fevers and leucocytosis. Although in our two patients who were treated with a stent graft for a mycotic aneurysm we had recommended life-long antibiotics, the patients stopped their antibiotics after 6 weeks. We continuously follow patients with mycotic aneurysms receiving an endoluminal graft clinically to detect any sign of reinfection and radiologically with serial CT scans to determine regression of the mycotic aneurysm with stabilization of the thoracic aorta.

In conclusion, life-long surveillance is necessary in patients with mycotic aneurysms treated with an endoluminal graft.

References

Early surgery in mitral valve endocarditis: it is sometimes too early

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The recent article published by de Kerchove et al. [1] beautifully depicted the possibilities of early mitral repair in acute infective endocarditis. Several years ago [2], our group also recommended broadening the indications and to operate sooner in the course of mitral endocarditis.

Two epidemiologic studies [3] conducted in France at a time lapse of 8 years (in 1991 and 1999, respectively) on a large scale (over 400 cases, 80% of them being left-sided endocarditis) have attempted to assess the changes in clinical practice. A major finding was a reduction in mortality of endocarditis (from 22% to 17%, p = 0.08) together with an increasing number of referrals to surgery (from 31% to 50%, p < 0.005), additional evidence that extending the indications for surgery had been beneficial for many patients.

In this study [3], surgery was performed after a mean period of 28 days. In our own experience the mean duration of antibiotics before surgery nowadays is 20 days in mitral valve endocarditis [4]. de Kerchove et al. [1] pushed the controversy of the optimal timing of surgery one step further as the operation was carried out after durations of antibiotic therapy decreasing from 17 days to only 6 days throughout the study period.

Their arguments for shortening the preoperative antibiotic period were that: (1) the mitral repair feasibility was higher when the patient was operated sooner and (2) early mitral repair would prevent any impairment of the left ventricular function. We believe that emergency or very early surgery should be commanded by the clinical situation such as cardiogenic shock or emboli with very large (>15 mm) and threatening vegetations rather than by the concern of achieving a mitral repair.

Indeed in our view, the chances of repair are not better when facing fresh bulky vegetations and abscesses which often require large tissue resection and complex reconstruction techniques. It is usually easier to deal with healed vegetations, isolated chordal rupture or perforated leaflet with sharp clean edges. In addition, the deterioration of left ventricular function is a slowly evolving process and the haemodynamic condition most frequently allows some delay. Is there any advantage in waiting? The answer is ‘yes’ for two good reasons: (1) as mentioned above in case of a severe mitral insufficiency, a repair can be attempted in the best possible anatomical conditions after a few weeks of antibiotics and (2) because an operation can sometimes be completely avoided and it would be unfair to subject the patient to an unnecessary open heart procedure.

Many isolated vegetations of reasonable size (<15 mm) with no or mild mitral insufficiency will never require surgery. It is well known that most emboli reveal the endocarditis and that the embolic risk rapidly drops within the first week of antibiotics. In recent series [5], the group undergoing medical treatment alone even had a lower mortality rate than the surgical group provided that the patients with a contraindication to surgery (major stroke, advanced age, comorbid disease) were excluded. Certainly, this group included mainly uncomplicated cases, but we fear that an excessive shortening of the time lapse between the diagnosis and a surgical decision may compromise the chances of success of a medical treatment alone.

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