

# Correspondence

## Early Surgery in Prosthetic Valve Endocarditis: When and for Whom?

TO THE EDITOR—We read with interest the article recently published by Chirouze et al [1]. However, we have some concerns about their article.

Deciding the optimal timing of surgery is one of the great difficulties in managing patients with infective endocarditis, not only for cardiologists or cardiac surgeons but also for infectious disease physicians. The available evidence to recommend timing of surgery in endocarditis is largely limited to observational data, cohort studies, and expert opinion. Nearly half of all patients with infective endocarditis will require early surgical intervention, and another 40%–50% will eventually undergo surgical treatment for their disease. Although the indication for surgery is clear in patients who develop heart failure, valve dehiscence, or paravalvular abscess, or who have uncontrolled infection, its role in other cases is less certain.

Chirouze and colleagues explored the impact of prosthetic valve replacement surgery within 60 days after the index admission on all-cause mortality in patients with *Staphylococcus aureus* prosthetic valve endocarditis. However, it is not clear why the authors choose to dichotomize their groups into early and late surgery groups using a cutoff value of 60 days. It is widely acknowledged that the benefits of surgical treatment would be maximized by performing surgery within a few days because the risk of embolism has been reported to be particularly high during the first week after diagnosis in patients with infective endocarditis.

The benefit of early surgery was investigated in the early surgery versus conventional treatment for infective endocarditis

trial, which is the first randomized trial in endocarditis [2]. In this study, 76 patients with left-sided native valve infective endocarditis, vegetations >10 mm, and severe valve dysfunction were randomly assigned to surgery within 48 hours or antibiotic therapy. The major finding in this study was that early surgery significantly reduced the composite endpoint of embolic events and death from any cause by effectively decreasing the risk of systemic embolism. Although Chirouze and colleagues evaluated the effects of early surgery in a subgroup of patients who underwent surgery within the first 7 days, it would be of great interest to know whether the earlier surgery (eg, within 48 hours) affected the outcome. Our second concern is about the absence of data on transesophageal echocardiography. Previous studies showed that the risk of embolism was associated with presence and size of vegetations with a diameter of >10 mm, and this risk was even higher among patients with very large vegetations (>15 mm in diameter) [3]. It would also be of great interest to know whether the presence or size of the vegetation was a predictor of the outcome in patients with *S. aureus* prosthetic valve endocarditis.

### Note

**Potential conflicts of interest.** All authors: No potential conflicts.

All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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