

## CORRESPONDENCE

Anesthesiology  
1996;85:1221  
© 1996 American Society of Anesthesiologists, Inc.  
Lippincott-Raven Publishers

## Should Antibiotics Be Prophylactically Administered to a Patient with an Asymptomatic Systolic Murmur?

*To the Editor:*—According to ANESTHESIOLOGY's Guide for Authors,\* "review articles are comprehensive surveys that synthesize *older ideas and suggest new ones*" It is with this in mind that the otherwise excellent review by Hanson *et al.*<sup>1</sup> concerning mitral valve prolapse falls short. Specifically, they had the forum and, therefore, the opportunity, to suggest an approach for clinicians confronted with an otherwise asymptomatic patient who on physical examination is for the first time, noted to have a systolic murmur and is scheduled for gastrointestinal, genitourinary, dental, or respiratory tract surgery. These patients may or may not have mitral valve prolapse. The dilemma is whether to prescribe prophylactic antibiotics. Most anesthesiologists do not have the expertise to make the definitive diagnosis, and consultation from a cardiologist on the day of surgery is frequently unobtainable. To cancel these elective surgeries in this era of managed care can cause enormous expense and patient inconvenience. One approach would be to prescribe prophylactic antibiotics empirically to all patients who happen to have a murmur. The trouble with this approach, as the authors correctly imply, is that the risk of anaphylaxis to the antibiotics is probably greater than the risk of endocarditis.<sup>2</sup> In addition, antibiotic prophylaxis has never been proven effective.<sup>2</sup> Because the authors chose not to suggest an approach and because, to the best of my knowledge, no literature is available that addresses this problem, I suggest the following. If the patient at risk is presenting for dental or respiratory tract surgery, erythromycin should empirically be given orally 2 h before surgery; then a dose 6 h later. This approach is based on the assumption that the incidence of anaphylaxis to erythromycin is less than the incidence of anaphylaxis to amoxicillin. The situation is more complex for patients presenting for gastrointestinal or genitourinary surgery. Here, the offending organism is enterococcus.<sup>3</sup> The only viable

alternative to intravenous ampicillin (amoxicillin) and gentamicin therapy is vancomycin and gentamicin.<sup>3</sup> In my judgment, vancomycin is not a drug "to be taken lightly." Therefore, I would suggest that, in this case, the anesthesiologist explain the situation to the surgeon and patient and present two reasonable options. First, cancel surgery, pending a cardiovascular consultation. Second, proceed without antibiotic coverage, with the understanding that the evidence for efficacy of prophylaxis is lacking.<sup>2</sup> In either case, I would document the discussions and decisions clearly in the medical record, and schedule the patient for medical followup at a later time.

**Bruce Kleinman, M.D.**  
Chief, Anesthesiology  
Edward Hines Jr. VA Hospital  
Stitch School of Medicine  
Department of Anesthesiology  
Loyola University Medical Center  
2160 South First Avenue  
Maywood, Illinois 60153

### References

1. Hanson EW, Neerhut RK, Lynch C: Mitral valve prolapse. ANESTHESIOLOGY 1996; 85:178-95
2. Durack DT: Prevention of infective endocarditis. N Engl J Med 1995; 332:38-44
3. Dajani AS, Bisno AL, Chung KJ, Durack DT, Freed M, Gerber MA, Karchmer AW, Millard HD, Rahimtoola S, Shulman ST, Watanakunakorn C, Taubert KA: Prevention of bacterial endocarditis. Recommendations by the American Heart Association. JAMA 1990; 264:2919-22

(Accepted for publication August 28, 1996.)

\* Guide for Authors. Anesthesiology 1996; 85:37A-38A

Anesthesiology  
1996; 85:1221-2  
© 1996 American Society of Anesthesiologists, Inc.  
Lippincott-Raven Publishers

*In Reply:*—Kleinman suggests a solution to the therapeutic dilemma that arises when faced with the preoperative patient who has a previously undetected systolic murmur due to any source. Although that topic was beyond the scope of the review, it does represent a scenario occasionally encountered in practice. Whereas a fraction of systolic murmurs may be diagnostically challenging, the majority of murmurs can be designated appropriately based on the history, epidemiology, and physical examination. For example, it is unlikely that the asymptomatic 80-yr-old patient with a soft crescendo-decrescendo

murmur of aortic sclerosis radiating into the neck, or the 5-yr-old patient with a soft, vibratory functional murmur of childhood has a significant valvular lesion.

Clearly, for those patients who present with symptoms compatible with cardiac disease and a newly detected systolic murmur, postponement and cardiologic evaluation is appropriate. For those asymptomatic patients whose murmur cannot be defined clearly, we agree that cancellation is unnecessary, although a later cardiologic referral may be indicated. With the potential for anaphylaxis in mind, and based