

As concerns the comment about the results of our study (1) in patients with a previous myocardial infarction, we assessed the efficacy of the three tests in detecting the extent of coronary artery disease: The accuracy values, not the sensitivity, in predicting the extent of coronary artery disease were 71% for exercise, 75% for dobutamine and 33% for dipyridamole.

Again, from a clinical perspective and after personal experience spanning nearly two decades, our view is that exercise testing firmly bears comparison with the easier to perform pharmacologic stress. Physical exertion is a better stress than dipyridamole, dobutamine and pacing according to a recent experimental study (7) in that it causes the most severe contractile dysfunction, and in clinical practice it maintains the unique capability of providing physiologic information on the patient's exercise capacity. Pharmacologic stress echocardiography, notably using dobutamine, could thus supplement rather than supplant the more traditional diagnostic role of exercise testing in the evaluation of chest pain. In light of the tangible difference between dipyridamole- and exercise-induced ischemic phenomena, dipyridamole being the coronary vasodilator liable to trigger ischemia in circumstances where no other physiologic activity can elicit the same response, in our opinion it is proper to wonder whether dipyridamole may be put to fruitful clinical use either as a means of diagnosing myocardial ischemia or as a valid tool for prognosis.

ARMANDO DAGIANTI, MD, FESC

Department of Cardiovascular and Respiratory Sciences
"La Sapienza" University
Viale del Policlinico
00161, Rome, Italy

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Antibiotic Prophylaxis Against Infective Endocarditis in Mitral Valve Prolapse

The thought-provoking exchange between Cheng (1) and Stoddard (2) concerning prophylaxis for patients with mitral valve prolapse raised questions that we have all struggled with. Should we recommend antibiotics for all such patients or only for those who demonstrate audible murmurs of mitral regurgitation, as recommended by the American Heart Association guidelines (3)? (What about the many patients who have no click, no audible murmur and no prolapse but have mild mitral regurgitation by Doppler at rest?)

One consideration that Cheng adduced for his argument that all patients with mitral valve prolapse should receive prophylaxis was that "antibiotic prophylaxis against infective endocarditis is highly cost-effective," quoting Gould and Buckingham (4). Analysis of the latter report suggests that this conclusion is far from secure.

First, Gould and Buckingham conceded that "there is no direct proof that antibiotic prophylaxis is efficacious." Lacking that, there is no way to prove their assertion that it is highly cost-effective. Second, they asserted that 15% of cases of infective endocarditis are attributable to dental procedures, citing an article by Bayliss et al. (5). Bayliss et al. reported a figure of 13.7% for cases that occurred as long as 3 months after a dental procedure. Three weeks would have been a more appropriate interval, according to Starkebaum et al. (6), who found that symptoms began within 2 weeks in 84% of the cases that they studied. When Bayliss et al. used an interval of ≤ 1 month to link a dental procedure with endocarditis, only 3.7% could be attributed to the dental procedure. This is nearly identical to the rate of 3.6% that I found after a literature search that included 1,322 cases (7). Another consideration in calculating the effectiveness of prophylaxis is the number of endocarditis cases with known heart disease before the infection, and that was only 42.5% (i.e., only 1.6% of all cases of endocarditis could have been prevented if prophylaxis had been successful). Considering that a number of cases that have had prophylaxis nevertheless develop endocarditis, even when the offending organism was susceptible to the antibiotic used (8), the percent of cases of endocarditis that could be prevented is surely $< 1.5\%$. This small number may explain why the incidence of endocarditis has not changed significantly since the introduction of chemoprophylaxis (5), which caused Bayliss et al. to argue that better dental care and hygiene are much more important than chemoprophylaxis.

Nevertheless, all the studies mentioned here advocate chemoprophylaxis for dental procedures. One good reason is to avoid litigation. At the least, we should make prophylaxis as simple as possible. Fortunately, the American Heart Association in 1991 abandoned their recommendation for intravenous antibiotics for high risk patients, which was never practical for most parts of the country. It is also reasonable to abandon the second dose of amoxicillin, in that the proven duration of bacteremia after extraction is only 15 min (7). The British have used only a single dose for some years (5). But for cost-effectiveness, chemoprophylaxis should receive a lower priority from cardiologists than good dental health.

WARREN GUNTHEROTH, MD, FACC

Department of Pediatrics (Cardiology)
University of Washington School of Medicine
1959 Northeast Pacific St.
Box 356320
Seattle, Washington 98195-6320

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