Coronary Angioplasty Practice in the United States

We wish to express some concern about the article by Dr Eric J. Topol and colleagues analyzing coronary angioplasty practice in the United States based on insurance-claims data. The key conclusion of this study was that the majority of coronary angioplasty procedures performed in this country are not preceded by objective evidence of myocardial ischemia, with the obvious conclusion that many of these procedures are being performed unnecessarily. Although the intent may have been to study patients with mainly stable angina pectoris, we strongly suspect that many of these patients were, indeed, unstable clinically. Table 1 of this article states that the median length of stay for patients without prior exercise testing was 6 days, which is roughly twice the average length of stay for patients with stable coronary disease undergoing elective percutaneous transluminal coronary angioplasty. Of these patients, 67% to 68% were labeled with a diagnosis of “angina”; however, in the absence of a large number of periprocedural complications, it is hard to imagine a median length of stay of 6 days for the “stable” anginal patient. The median length of stay was only 3 days for those with prior exercise testing, and this is probably a greater reflection of those patients with a truly stable coronary artery disease. Thus, we would like to suggest that many of the patients without prior exercise stress testing were relatively unstable and were not deemed appropriate candidates for such.

There are many other potential reasons for not performing stress testing before coronary angioplasty, and indeed, there are a number of class I indications, based on the American College of Cardiology/American Heart Association guidelines, for the justifiable use of coronary angioplasty in patients without prior exercise stress testing, including those with angina pectoris who have proved unresponsive to medical therapy or intolerant of medical therapy.

Although we have no doubt that some interventional cardiologists in the United States are overusing coronary angioplasty for financial rewards, we feel that the majority of interventional cardiologists do follow published practice guidelines to the benefit of our patients. Data as constructed in the article of Topol et al should not be used by governmental agencies and third-party insurers as a definitive assessment of utilization review.

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References

Reply
We appreciate the letter of Dr Titus and colleagues and understand their concern regarding the potential misclassification of patients with “unstable” as “stable” angina. Although the length of stay was long (median of 6 days) in patients without prior exercise testing, the data base was inclusive of all patients undergoing coronary angioplasty tracked by MEDSTAT, such that one would assume that a significant proportion of patients underwent elective procedures for stable angina. Although a miscoding or misclassification could occur, the large proportion of patients who were categorized as having unstable angina or recent myocardial infarction (representing 25% of patients in the data base) suggests that this problem was not frequent. These data were derived from a diverse group of predominantly community hospitals during 1988 and 1989 and certainly may not reflect contemporary standards. Taking into account the limitations of an insurance-claims data base, however, we do believe that there was a surprising proportion of patients who did not have an exercise test who would otherwise be deemed eligible and suitable for this preprocedural evaluation. This is highlighted by the point that only 9% of patients with recent postinfarction underwent functional testing. Further, we do not mean to imply that exercise treadmill testing is required in all patients. Yet, even in patients who are unresponsive to or intolerant of medical therapy, the preprocedural evaluation may be useful in quantifying the extent of ischemia and providing a useful noninvasive objective tool for assessing procedural success and lack of recurrence during follow-up. We absolutely agree that the data in the article should not be used by governmental agencies and third-party insurers but, rather, that it should heighten the awareness of interventional cardiologists that, at least in a representative cross section of angioplasty practice in the United States a few years ago, there was insufficient compliance with the established guidelines.

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