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(Accepted for publication March 22, 2000.)

Anesthesiology
2000; 93:272

Assessment of the Patient with Cardiac Disease

To the Editor:—We read with interest Dr. Mangano's paradigm for preoperative assessment of patients with cardiac disease.[1] We have several concerns. First, the paradigm does not differentiate major surgery from minor surgery. Obviously, preoperative evaluation and perioperative treatment are different for patients undergoing cataract surgery, cholcystectomy, or abdominal aortic aneurysm resection. Second, the only management technique that has been proven to reduce perioperative morbidity is β blockade,[2,3] and this should be included in the paradigm for patients with coronary artery disease or suspected coronary artery disease who are scheduled for intermediate or major surgery (unless contraindicated). Third, there is no substantial evidence that 24-48 h postoperative hemodynamic and ischemic monitoring will benefit patients with mild to moderately positive stress test results. Intensive care unit monitoring is costly and should be reserved for patients undergoing major surgery. Fourth, most patients with coronary artery disease and impaired functional status should not bypass stress testing and automatically undergo coronary angiography. A patient may have impaired functional status as a result of previous myocardial infarction, yet have a minimal amount of residual myocardium at risk. Also, impaired functional status may result from many nonischemic causes, including obesity and emphysema. A specialized stress test, such as an adenosine thallium scan or dobutamine echocardiography, assesses functional myocardium at risk in this subset, compared with angiography, which delineates only anatomic information.

Unfortunately, a randomized study that proves whether preoperative testing improves patient outcome has yet to be performed. It is unknown whether the risk-stratification costs (delays in surgery; money for testing; complications from angiography, angioplasty, and coronary artery bypass surgery) are offset by improved patient care. Because patient history, physical examination, and electrocardiography adequately assess which patients will benefit from β blockade,[2] there is unproven benefit to specialized testing until we demonstrate that other management techniques improve perioperative outcome.

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(Accepted for publication March 22, 2000.)

Anesthesiology
2000; 93:272-3

In Reply:—I would first like to extend my appreciation to all of the individuals who have expressed interest in this area of medicine.[1] Your insights and suggestions have been most appropriate.

In the first of the letters here, Drs. Hepner and Bader suggest anesthesiologists should assume a greater role as primary caregivers—specifically, as perioperative physicians. I could not agree more with my colleagues in this regard. Anesthesiologists truly are uniquely qualified to care for high-risk patients undergoing surgery because only with such specific training and experience can the clinician appropriately integrate diverse recommendations provided by multiple specialists, enabling synthesis of a comprehensive perioperative care plan. To suggest a preoperative assessment paradigm, for example, without a comprehensive understanding of the perioperative stress response—be it precipitated by sympathetic, inflammatory, thrombotic,