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In Reply:—We appreciate the opportunity to clarify some apparent confusion between what we demonstrated and what we then speculated. We demonstrated that in a population of patients with documented coronary artery disease, myocardial ischemia occurring before cardiopulmonary bypass (diagnosed as ≥1.0 mm of ST segment depression on a narrow-bandwidth SL-MON ECG system) was associated with an increased risk of postoperative myocardial infarction.[1,2] We next demonstrated that the ST segment recorded by the SL-MON narrow-bandwidth ECG system was consistently more negative than the standard diagnostic-bandwidth ECG (ECG-100) and as a consequence led to a diagnosis of myocardial ischemia twice as frequently as did the ECG-100.[3] These observations were supported by abundant data.

From these we speculated that myocardial ischemia diagnosed by the narrow-bandwidth SL-MON system had high sensitivity (more frequent diagnosis of ischemia) and high specificity, because: 1) the incidence of ST-segment displacement was directly related to heart rate; 2) ST-segment displacement responded to treatment by propranolol or nitroglycerin; 3) ST-segment displacement was a significant independent predictor of postoperative myocardial infarction; and 4) the magnitude of ST depression (including 1.0 mm) was directly related to incidence of postoperative myocardial infarction. We claim high specificity on this basis because there is no independent measure of myocardial ischemia applicable to this clinical situation for use as a "gold standard". Neither wall motion abnormalities nor coronary sinus lactate extraction possesses high specificity for myocardial ischemia. Without some "absolute" measure of ischemia, specificity of any of these indices cannot be calculated, but must be inferred.

We then speculated that the ECG-100 system and ≥1.0-mm ST depression criterion, standards adopted for primary diagnosis of ischemic heart disease by exercise testing, may be too stringent for the ECG diagnoses of myocardial ischemia *in patients with documented coronary artery disease in the perioperative setting.* If tested, a criterion of less than 1.0-mm ST depression using either the ECG-100 or the SL-MON in these patients and this setting may prove to be diagnostic of myocardial ischemia with high specificity by the specificity criteria listed above.

Conversely, we also speculated that when an ECG system with the narrow bandwidth of SL-MON is used for the diagnosis of myocardial ischemia *in patients not known to have coronary artery disease* (as reported for patients undergoing cesarean section), displacements of ≥1.0 mm may not be diagnostic of myocardial ischemia (false positive) because of all the physical and patient factors influencing the position of the ST segment described in our discussion.[3] These factors will always generate some unpredictable false positive results in some patients at some time.

Finally, we did not recommend that the SL-MON replace the ECG-100 in operating rooms. We merely noted that the reason for a narrow-bandwidth ECG in the operating rooms still existed (electrical noise), and when used for patients with documented coronary artery disease, high specificity for the diagnosis of myocardial ischemia could be expected.

All of these speculations require confirmation or refutation by data directed specifically to each issue. The senior author remains quite consistently "an outspoken critic of monitoring without demonstration of efficacy".

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The Cervical Spines of Dwarfs

To the Editor:—I read with interest and appreciation the recent review by Berkowitz *et al.*[1] of anesthetic implications of dwarfism. I am sure that it will be a widely used reference. I was, however, troubled by a few statements made and a few statements omitted by the authors in discussion of the cervical spine problems of these patients. The cervical spines of patients with pseudoachondroplasia, diastrophic dysplasia,