

Anesthesiology
50:71, 1979

In reply:—We thank Dr. Giesecke for pointing out our error in calculating mean gastric fluid pH values. In response to his comments, the data from tables 3 and 4 have been correctly calculated using hydrogen ion concentration and converting these values to mean gastric fluid pH. The correct values are in parentheses next to the incorrect values published previously.

Table 3:

	pH below 2.5	pH above 2.5
Morphine	1.6 (1.6)	4.9 (3.4)
Morphine-atropine	1.8 (1.7)	4.6 (3.3)
Morphine-glycopyrrolate	1.9 (1.8)	5.2 (3.7)

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ECG Detection of Atrial Dysrhythmias

To the Editor:—Dr. Boba suggests that monitoring of the intra-arterial blood pressure would detect atrial dysrhythmias in the anesthetized patient.¹ The atrial rhythm can be seen on an ECG oscilloscope by placing the positive electrode on the fourth intercostal space to the right of the sternum, the negative one close to the left shoulder, and the ground electrode anywhere on the patient. Not only does this lead show well-formed P waves, but it also has the advantage of a single monitoring lead that shows the difference between left ventricular and right ventricular ectopic impulse formation, right bundle-branch block versus left bundle-branch block, and left ventricular ectopy versus right bundle-branch block aberrations. When the operative site prohibits the use of this lead, the anesthesiologist can place the positive and negative electrodes at various locations until a P wave is seen, *e.g.*, place the positive electrode at the bottom of the left rib cage. Using this lead during anesthesia, I

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In reply:—I support the use of electrocardiographic monitoring outlined by Dr. Ratchford. However, even with conventional electrocardiographic monitoring, not all dysrhythmias will be detected. Furthermore, the blood pressure disturbance is not necessarily related to the seriousness or significance of the dysrhythmia and, hence, the need to have both. The complications of prolonged arterial cannulation, as seen in patients in an intensive care unit, are not seen after short-term arterial cannulation performed in the anesthetized patient. A recent report is consistent with my ten years of experience with 3,000 patients.¹

Table 4:

	pH
Morphine	1.6 (1.6)
Morphine-atropine	1.8 (1.7)
Morphine-glycopyrrolate	1.7 (1.6)

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sometimes see the P wave move back and forth through the QRS complex. Then I know the heart has a nodal rhythm and has lost its "atrial kick." Since this precedes any decrease in blood pressure, I recommend ECG monitoring of a well-formed P wave rather than the intra-arterial blood pressure, with its invasive monitoring complications.²

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