Since we have come to rely on negative studies to exclude myocardial necrosis, our results corroborate and amplify the results of Kelly's study and document our previous anecdotal experience indicating that the inorganic (PPi) imaging agents possess clear-cut superiority over the organic diphosphonates in the diagnostic field of infarct-avid imaging in cardiology.

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Unusual ECG Artifact

The ECG tracing shown in Fig. 1 was obtained from a patient referred for a gated blood-pool study. The patient had a peripheral intravenous line in place and was receiving intravenous fluid through an "IVAC" peristaltic infusion pump. In this figure, the pump was turned on just after the fifth R wave on the top tracing, and was turned off just after the sixth R wave on the bottom tracing. There is an obvious artifact resulting from the pump at about 300 cycles per minute. At times the amplitude of the artifact was sufficient to disturb the normal triggering of the ECG gate (although in this tracing only one beat was missed). The artifact was seen when the pump was connected to a properly grounded outlet or when disconnected and powered by internal batteries.

Such artifacts probably arise from conductivity through the tubing or along the outer surface of the tubing or from radiofrequency coupling. There is apparently no danger to the patient from this conductivity except through possible actions of a physician who might misinterpret the tracing. It is important that nuclear medicine physicians and technologists become aware of this possible artifact since it can interfere with normal triggering of ECG gates. The treatment of the "arrythmia" is as simple as flipping a switch.

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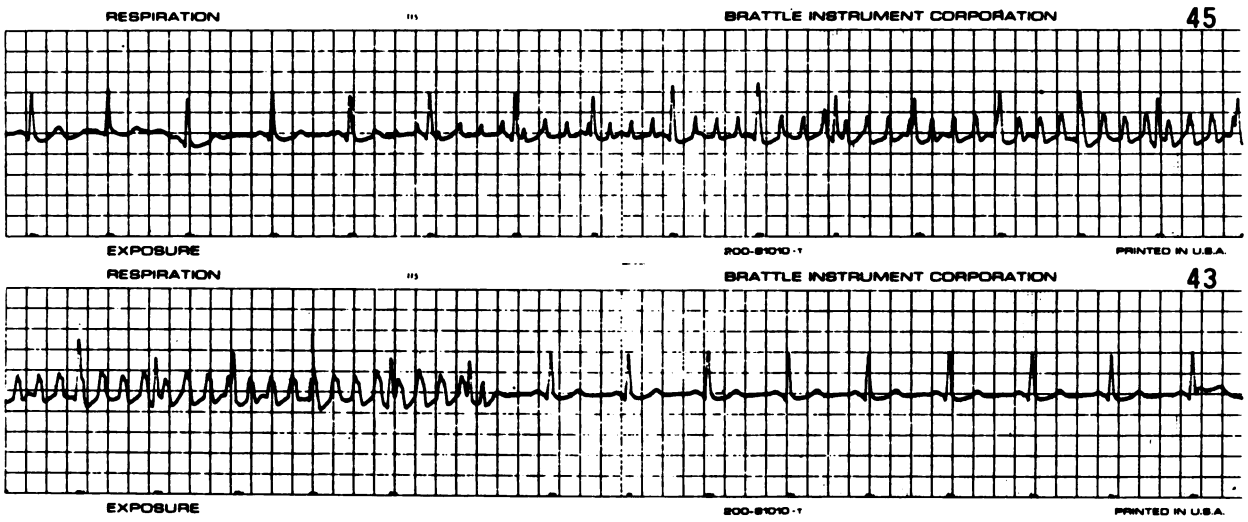

FIG. 1. Continuous ECG tracing showing an artifact that can arise from an "IVAC" peristaltic infusion pump.