exercise tests on subsequent days in order to determine the reproducibility of electrical alternans of the elevated ST segment. On both repeat studies, neither ST segment elevation nor alternation occurred; rather, the patient experienced ST segment depression despite achievement of higher levels of exercise. He was subsequently found to have severe triple vessel coronary artery disease by angiography. The most likely explanation for ST segment elevation on the first test is transmural ischemia due to coronary spasm. Spasm is the only reasonable explanation for why such changes could occur on only one of three otherwise identical tests. We therefore suggest that all such patients should undergo repeat exercise testing done with proper precautions before it is concluded that spasm is not involved.1,4

John J. Rozanski, M.D., Miami Beach, Florida; and Morris Kleinfeld, M.D., Brooklyn, New York

REFERENCES

To the Editor:

Dr. Rozanski helpfully points out four cases similar to our case. Three of these reports are in journals to which we do not have regular access and the fourth, in Archives of Internal Medicine, buried the alternans among a great deal of material under the title "ECG manifestations of myocardial ischemia."

I am mystified by Dr. Rozanski's reference to "a false assumption . . . (that) it cannot be due to coronary artery spasm." We did not make this claim. The ensuing material from Dr. Rozanski's letter to the editor in PACE (one of the cases we were unaware of) is therefore not related to our report. Yet his analysis of those cases can only be agreed with.

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Postthymectomy Pericardial Tamponade

To the Editor:

We read with interest the article by Wanner et al Chest (1983; 83:647-49). In that same month we were caring for a patient with a life-threatening complication directly related to postthymectomy pericarditis.

A 34-year-old dentist presented with a six-month history of diplopia, ptosis and exertional muscle fatigue. The diagnosis of myasthenia gravis was confirmed by EMG, positive Tensilon test, and elevated acetylcholine receptor antibody titer. A chest roent-

genogram revealed left upper lobe granulomata and calcified left hilar node. CT scan of the chest demonstrated a 3.5 cm mass to the left of the main pulmonary artery. At surgery, the anterior mediastinum was dissected en masse and a well-encapsulated thymoma was present. Additional dissection was undertaken to remove extensive and heavily calcified tissue. This probably represented old granulomatous disease, but no granuloma or organism was identified with special stains. Results of routine TB and fungal cultures were negative.

Postoperatively, the patient had transient left recurrent laryngeal nerve dysfunction, but his myasthenia cleared over the next three months. Deep venous thromboses of the calves were documented by venography as an outpatient three weeks postoperatively and warfarin anticoagulation was begun. The protime maintained between 18 and 22 seconds (control 10 to 13 seconds). Shortly thereafter, the patient noted increasing dyspnea. Five weeks postoperation he noted left anterior pleuritic chest pain and greatly increased dyspnea on exertion.

His physical examination at that time was consistent with pericardial tamponade with a pulse rate of 120, jugular venous distension, 40 mm of pulsus paradoxicus, and slight liver tenderness. Pericardio- centesis of 200 ml of bloody fluid resulted in prompt hemodynamic improvement. Cultures of the fluid for routine bacteria, TB and fungi were negative. The serum antinuclear antibody was negative and serum complement levels were normal. Warfarin was discontinued and 75 mg of triamcinolone hexacetonide (Aristospan) was instilled into the pericardium, resulting in prompt improvement. The pericardiums recurred approximately two weeks later without tamponade and readily responded to therapy with indomethacin.

We present this case as a serious complication of postoperative pericarditis after thymectomy. If we had been aware of the frequency of pericarditis following thymectomy, perhaps conservative management without anticoagulation of this patient's calf vein thrombophlebitis could have been undertaken. At least we would have more carefully looked for pericardial effusion during the course of treatment. Physicians should be aware of the risks of anticoagulation after thymectomy because of the frequent occurrence of occult pericarditis as described by Wanner, et al.

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Humidification Hazard

To the Editor:

I wish to call attention to a potentially fatal user-induced malfunction of a Bird model 3000 heated humidifier (Bird Products Division/3M, St. Paul, MN). The Bird humidifier is a highly efficient, heated, in-circuit, pass-over humidifier. The water reservoir within the humidifier incorporates a water inflow system composed of a central vertical metallic tube which sits over a foam-filled plastic float, the superior surface of which is a rubber disc (Fig 1). As water drips through the metallic tube and into the reservoir, the float rises until its rubber disc contacts and occludes the open end of the metallic tube to halt further inflow of water. As water is vaporized from a tubular wick immersed in the water, the float falls and the reservoir fills again. A central spindle protrudes from the bottom of the reservoir to fit into a vertical cylindrical opening in the center of the bottom surface of the float. This spindle-in-cylinder arrangement is intended to maintain a functional relationship between the rubber seal on top of the float and the capillary tube protruding down into the evaporation chamber. The cylindrical pin also appears to have been designed to prevent incorrect placement of the float in the reservoir (eg, upside down or sideways).

This humidifier is used in our institution during anesthesia for long procedures. Recently, the device was placed in the inspiratory