Letters to the Editor of Clinical Workshop

The Emerson Postoperative Ventilator

To the Editor: May I take this opportunity to comment on the paper, "An Unexpected Complication (Hyperthermia) While Using the Emerson Postoperative Ventilator," by Perry J. Kirch, AAIT, and Thomas J. DeKornfeld, M.D., in ANESTHESIOLOGY 28: 1106, 1967.

When we go out on a cold day, and the wind is blowing, we become colder than on days when the wind is not blowing. Calories of heat loss due to movement of air during exposure have been calculated and reported by Pugh.* A heated vaporizer is similar to a person. When wind blows through it, it carries away heat. The tidal volumes necessary to ventilate the infant are much smaller than the tidal volumes necessary to ventilate an adult. In the case reported, the small tidal volumes did not remove enough heat from the vaporizer to prevent overheating. The complication found could be anticipated from the manufacture of the equipment. It is always easy to be a Monday morning quarterback, and Mr. Kirch and Dr. DeKornfeld are to be complimented for publishing their report. An obvious answer to the problem would be to include more delivery tube between the machine and the patient for cooling by room ambient air. This, however, would cause an increased compressible volume and make management of the patient more difficult. A simpler solution would be a two-part heater and an in-line thermometer. As these problems have been discussed with Mr. Jack H. Emerson, I am happy to report that Mr. Emerson now can deliver a Y attachment for the ventilator with an in-line thermometer and a two-part heater, so that the heat under the vaporizer can be reduced when small tidal volumes are to be employed.

JOHN B. STETSON, M.D.
Associate Professor
and Associate Director
Division of Anesthesiology
Ohio State University Hospitals
Columbus, Ohio

* Pugh, L. G. C.: Lancet 1: 1210, 1964. Pugh, L. G. C., and Edholm, O. G.: Ibid. 2: 761, 1955. Pugh, L. G. C.: Brit. Med. J. 1: 123, 1966.

Surgery

INTRAPULMONARY CHEMODECTOMAS In 12 of 15 patients with organized and organizing thromboemboli of the lungs, chemodectomas were found. These have a structure similar to that of the carotid body. They are thought to develop from intrapulmonary chemoreceptor cells as a result of ischemia. It is postulated that these tumors may release a vasoconstrictor and bronchoconstrictor substance. They have been found in other conditions, such as mitral stenosis with pulmonary hypertension, kyphoscoliosis and pulmonic stenosis. (*Spain, D. M.: Intrapulmonary Chemodectomas in Subjects with Organizing Pulmonary Thromboemboli, Amer. Rev. Resp. Dis. 96: 1158 (Dec.) 1967.*)

THORACIC SURGERY IN PREGNANCY Residual pulmonary tuberculous lesions were resected in 29 pregnant women in surgical operations ranging from wedge resections to pneumonectomies. One woman delivered a stillborn infant five days postpartum; the remainder delivered normal infants at term. (*Tarnoff, J., and others: Major Thoracic Surgery During Pregnancy, Amer. Res. Resp. Dis. 96: 1169 (Dec.) 1967.*)