beta stimulation may be due to increased concentrations of myocardial norepinephrine. (*Gould, L., and others: Treatment of Cardiac Arrhythmias with Phentolamine—Appraisal and Reappraisal of Cardiac Therapy, Amer. Heart J. 78: 189 and 276 (Aug.) 1969.*)

ABSTRACTER'S COMMENT: Phentolamine, an alpha blocker and beta stimulator, joins the beta blockers, quinidine and various local anesthetics as a drug effective in the treatment of ventricular arrhythmias. This suggests that the therapeutic control of arrhythmias is related to something other than stimulation or depression of the autonomic nervous system.

Respiration

HYPOVENTILATION A condition resembling idiopathic alveolar hypoventilation in seven patients with impaired pulmonary function is described. The patients had chronic cor pulmonale, diminished ventilatory responses to inhaled carbon dioxide, carbon dioxide retention disproportionate to the extent of airflow obstruction, and ability to hyperventilate voluntarily and return Pa_{O_2} and Pa_{CO_2} to normal or near-normal levels. These studies suggest that the clinical spectrum of idiopathic alveolar hypoventilation can be extended to include some patients with obstructive and restrictive pulmonary disease and that respiratory insensitivity to carbon dioxide is not uncommon. (*Rhoads, C. G., and Brody, J. S.: Idiopathic Alveolar Hypoventilation: Clinical Spectrum, Ann. Intern. Med. 71: 271 (Aug.) 1969.*)

VENTILATION When pulmonary blood flow is interrupted, deleterious effects on the lungs can be minimized by maintaining alveolar ventilation. It is possible that structural lung changes following cardiac bypass may be modified by maintaining ventilation during interruption of pulmonary circulation. Ventilation is mechanically assisted for three to four hours postoperatively. A readily controllable respiratory alkalosis replaces a mixed acidosis from poor arterial oxygenation. (*Saperstein, W., and Kohari, J.: Pulmonary Ventilation during Open-heart Surgery, Surgery 66: 555 (Sept.) 1969.*)

TENSION PNEUMOTHORAX A 41-year-old woman was admitted following severe trauma which resulted in a skull fracture, patellar injury, trauma to the thorax at the level of the third rib, and a fractured arm. X-ray showed a slight pneumothorax on the right side. While the wounds were being sutured with the patient under local anesthesia, she suddenly became short of breath and sustained a cardiac arrest. After three minutes of extracorporeal cardiac massage and ventilation, the heart resumed normal function. Spontaneous respiration started after ten minutes and was rapid and shallow. Positive-pressure ventilation was extremely difficult. Reintubation did not help and a second cardiac arrest followed 20 minutes after the first. After several fruitless attempts at resuscitation, the possibility of a pneumothorax was considered. A second x-ray showed a bilateral tension pneumothorax, which was treated by needle aspiration. Within a minute, the heart strated beating again and spontaneous respiration resumed. Paradoxical respiration, due to an anterior thoracic flap, was controlled by artificial ventilation. After resuscitation, a third x-ray revealed multiple fractures of the right ribs. The patient left the hospital a few months later completely recovered. The cause of the first cardiac arrest was obscure. It occurred 30 minutes after the injection of procaine (30 ml of 1 per cent). The rapid resumption of cardiac function excluded an extensive pneumothorax at that time. The second arrest was due to a bilateral tension pneumothorax, which may have been caused by artificial ventilation, but probably resulted from trauma to the lung from rib fractures produced during the external cardiac massage. If there are ventilation problems during external cardiac massage, a pneumothorax should be considered. (*Otteni, J. C., and others: Pneumothorax Bilatéral à soupape après Massage Cardiaque Externe, Anesth. Anal. (Paris) 26: 401, 1969.*)

ATELECTASIS In a study of 56 patients undergoing superficial surgical operations and light anesthesia, 12 developed atelectasis in the postoperative period and six of these also inhaled iodized oil fluid on being asked to