were treated for a total of 65 treatments. All but three of the patients had rheumatic valvular disease. The "cardioversion" was successful in restoring sinus rhythm in 45 of the 50 patients. No immediate complications were noted. The patients were premedicated with 0.3 gram of quinidine sulfate and 0.1 gram of pentobarbital one to two hours prior to "cardioversion" and anesthetized with thiopental sodium given intravenously. Muscle relaxants were not employed. (*Lown, B., and others: "Cardioversion" of Atrial Fibrillation, New Engl. J. Med. 269: 325 (Aug. 15) 1963.*)

**EFFECTS OF POSITIONING** Effects of 30-degree head-down and head-up tilting on mean systemic blood pressure, carotid blood flow, and heart rate were studied in sixteen dogs under morphine and Nembutal anesthesia. The tilting procedure was further repeated after denervation of the carotid sinus and aortic arch baroreceptors and after administration of a dihydrogenated ergot alkaloid mixture, Hydergine. The drop in pressure in the head-down position is primarily due to baroreceptor activity and the baroreceptors are necessary for compensatory vasoconstriction on head-up tilting. The baroreceptors were active under morphine and pentobarbital anesthesia. Carotid blood flow decreased in both tilted positions in the control animals. (*Abel, F. L., Pierce, J. H., and Guntheroth, W. G.: Baroreceptor Influence on Postural Changes in Blood Pressure and Carotid Blood Flow, Amer. J. Physiol. 205: 360 (Aug.) 1963.*)

**CAROTID SINUS STIMULUS** Integrated electrical activity from the entire Hering's nerve of the cat was measured and correlated with $(H^+)$, $P_{CO_2}$ and oxygen of arterial blood. The $(H^+)$ was the most significant chemoreceptor stimulus, and carbon dioxide acted only as it effected a change in the *p*H. (*Hornbein, T., and Roos, A.: Specificity of H ion Concentration as Carotid Chemoreceptor Stimulius, J. Appl. Physiol. 18: 580 (May) 1963.*)

**PRIMARY PULMONARY HYPERTENSION** Infuson of acetylcholine 4.25 mg./minute into the right atrium via cardiac catheterization in a patient with primary pulmonary hypertension led to a decreased pulmonary arterial pressure indicating an element of vascular reactivity. However, this reactivity may disappear with the passage of time and progress of the vascular lesions so that ultimately the pulmonary bed is not influenced by the acetylcholine. (*Samet, P. and Bernstein, W. H.: Loss of Reactivity of the Pulmonary Vascular Bed in Primary Pulmonary Hypertension, Amer. Heart J. 66: 197 (Aug.) 1963.*)

**HYPOTHERMIA** Experimental animals were so prepared that the body could be cooled while the cardiopulmonary system was normothermic or hypothermic. It was found that cooling of the body or only of the lungs had no cardiac effect. Cooling of the heart, with or without other parts of the body, caused bradycardia; the effect on contractile force could not be accurately determined. (*Bender, H. W., and others: Effects of Hypothermia on Myocardial Contractile Force, Arch. Surg. 87: 464 (Sept.) 1963.*)

**HYPOXEMIA** Relation between pulmonary vascular resistance and the oxygen tension of the blood perfusing pulmonary precapillary vessels was studied. For this purpose, dinitrophenol and carbon monoxide were used to reduce the oxygen tension of mixed venous blood without affecting the alveolar or pulmonary venous oxygen tensions. A decrease in the oxygen tension of the mixed venous blood elicited an increase in pulmonary arterial pressure and in pulmonary vascular resistance. The pressor response originated in a direct effect of the mixed venous oxygen tension on the pulmonary precapillary vessels, rather than in either the pharmacologic effects of dinitrophenol or carbon monoxide, changes in blood *p*H or carbon dioxide tension, or changes in the oxygen tension at some extrapulmonary chemosensitive site. (*Bergofsky, E. H., and others: Pulmonary Vasoconstriction in Response to Precapillary Hypoxemia, J. Clin. Invest. 42: 1201 (Aug.) 1963.*)

**HYPOXIA** Normal dogs were anesthetized with morphine and chloralose, intubated, and given mixtures of nitrogen and oxygen through a nonrebreathing valve by spon-