Literature Briefs

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Briefs were submitted by Drs. A. Boutros, H. Cascorbi, W. H. Mannheimer, F. McPartland, D. H. Morrow, E. S. Munson, L. J. Saidman, S. Shnider, W. C. Stevens, and C. J. Wilkinson. Briefs appearing elsewhere in this issue are part of this column.

Circulation

ELECTROCONVULSIVE THERAPY Femoral pulse waves were recorded before, during and after electroconvulsive therapy (ECT) in 40 hospitalized psychotic patients. The 19 men and 21 women ranged in age from 17 to 44 years. Immediately upon electrical stimulation, severe bradycardia, hypotension and, occasionally, cardiac arrest occurred and lasted about five to ten seconds. Then tachycardia and hypertension which lasted about three to five minutes developed. When ECT was repeated, changes were most severe during the first shock and less profound following repeated shocks. Premedication with one mg atropine sulfate prevented the bradycardia and hypotension following the stimulation. One minute after ECT therapy, arterial blood gas showed decreases in *p*H and P_{O_2} and an increase in P_{CO_2}. Both P_{O_2} and P_{CO_2} recovered within three minutes, but *p*H recovered more slowly. Serum potassium increased one minute after ECT and returned to control after three minutes. These changes in arterial blood could be prevented by controlled respiration. (*Kurosawa, M., and others: Cardiovascular Changes During Electroconvulsive Therapy, Therapeutics 21: 1047, 1967.*)

PULMONARY HYPERTENSION The effect of prolonged oxygen breathing upon pulmonary vasculature was studied in six men who had evidence of chronic bronchitis and pulmonary hypertension. Oxygen was administered via a nasal catheter at one to three liters per minute for four to eight weeks. Mean arterial oxygen tension increased from 55.4 mm Hg to 74.5 mm Hg, and mean arterial carbon dioxide tension increased from 64.6 mm Hg to 71.6 mm Hg. Other significant changes during the period of oxygen breathing included decreases in pulmonary artery pressure (PAP), arterial hematocrit and erythrocyte volume. Pulmonary function and cardiac output did not change. In the three to six weeks following return to air breathing, PAP increased toward preoxygen values. The lowered PAP during oxygen therapy probably resulted from a regression of the muscular hyperplasia of small pulmonary vessels consequent to long-term relief of hypoxia. (*Abraham, A. S., and others: Reversal of Pulmonary Hypertension by Prolonged Oxygen Administration to Patients with Chronic Bronchitis, Circ. Res. 23: 147 (July) 1968.*)

CEREBRAL FAT EMBOLISM Five patients injured in traffic accidents became severely comatose after fat embolism. The expected mortality in such cases is 50 to 80 per cent. However, after a regimen of vasodilation with phenoxybenzamine, IPPB, low-molecular-weight dextran and hypothermia, all patients survived. Low-molecular-weight dextran improves microcirculatory flow patterns, increases tissue perfusion, and is claimed to have a "siliconizing" effect on the vessel walls. Phenoxybenzamine relieves any tendency for vasospasm, thereby allowing fat emboli to pass more readily through the vascular channels. With this treatment peripheral blood flow is improved and cellular ischemia is diminished. (*Larson, A. G.: Treatment of Cerebral Fat Embolism with Phenoxybenzamine and Surface Cooling, Lancet 2: 250 (Aug.) 1968.*)

HEMOGLOBIN IN THE AGED The hemoglobin levels of 202 healthy, elderly people were determined. The mean hemoglobin values in men and women were 13.62 and 13.11 g/100 ml, respectively. Chronic urinary disease was a significant cause of anemia in men, and indigestion was associated with