ing (IPPB) in Acute Ventilatory Failure, Amer. Rev. Resp. Dis. 92: 885 (Dec.) 1965.)

PULMONARY EMPHYSEMA The use of bronchodilators in patients with pulmonary emphysema unassociated with an obvious asthmatic component is not well established. Nine patients with emphysema were studied before and after the administration of a bronchodilator (Aeroline). The changes in vital capacity and forced expiratory volume were small and inconsistent following the bronchodilator. However, a significant reduction in total work per breath following bronchodilator administration did occur and was attributed to a consistent reduction in inspiratory air flow resistance. It is suggested that the regular use of nebulized bronchodilators may be of value in the management of pure pulmonary emphysema. *(Miller, J. M., Gall, G., and Sproule, B. J.: Work of Breathing Before and After Bronchodilators in Patients with Emphysema, Dis. Chest 48: 458 (Nov.) 1965.)*

RHEUMATOID LUNG Five varieties of rheumatoid pulmonary disease have been identified. They include: chronic pneumonitis, diffuse interstitial fibrosis, discrete pulmonary nodules with or without cavitation, rheumatoid pneumoconiosis, and rheumatoid pleurisy with effusion. The diagnosis of rheumatoid lung must be considered in patients with rheumatoid arthritis when chest roentgen-ray changes are detected, although other pulmonary diseases must be excluded. *(Petty, T. L., and Wilkins, M.: The Five Manifestations of Rheumatoid Lung, Dis. Chest 49: 75 (Jan.) 1966.)*

HYPERCARBIA Deliberate hypercarbia under general anesthesia for carotovertebral arterioplasty was done to promote increased cerebral blood flow. Underventilation permitted easy regulation of both the amount and rate of increase in the P_{CO_2}. A slow rise in carbon dioxide tension (less than 2 mm. of mercury per minute) and limiting such a rise to 60 to 70 mm. of mercury proved desirable. The incidence of induced neurological deficit under hypercarbic anesthesia is favorably compared to the incidence under local and general anesthesia without hypercarbia. *(Homi, J., and others: Hypercarbic Anesthesia in Cerebrovascular Surgery, Surgery 59: 57 (Jan.) 1966.)*

HYPERBARIA Hyperbaric oxygenation provided protection against hypoxia in the canine hind limbs following abdominal aortic occlusion. Breathing 100 per cent oxygen at 3 ATA elevated the femoral venous P_{O_2} to a level higher than that measured before aortic occlusion while breathing air at 1 ATA. Excess lactate production did not occur in the former instance either. *(Wang, M. C. H., and others: Hyperbaric Oxygenation: Oxygen Exchange in an Acutely Ischemic Vascular Bed, Surgery 59: 94 (Jan.) 1966.)*

HYPERBARIC OXYGEN THERAPY Clinical trials of hyperbaric oxygen therapy have now identified some bona fide uses of this therapeutic modality. They include: carbon monoxide intoxication, gas gangrene and compression sickness. Some reduction in operative mortality has been achieved in surgery for congenital heart disease in infants. It has apparently been helpful in resuscitation of some heart patients with low cardiac output syndrome with intact coronary circulations. Recovery of partially ischemic limbs has been facilitated, especially in those instances where surface infection exists and is promoting or causing local gangrene. *(Baffes, T. G., and Agustsson, M. H.: Changing Concepts in Hyperbaric Oxygen Therapy, Dis. Chest 49: 83 (Jan.) 1966.)*

HYPOTHERMIA The variations of pH values, carbon dioxide tensions and total carbon dioxide in blood and cerebrospinal fluid were examined in 6 patients who were operated upon under hypothermia for a cardiovascular anomaly. At rectal temperatures of 31–32° C., there was a decrease in the difference of the carbon dioxide tensions of arterial blood and cerebrospinal fluid. This might indicate that the metabolic processes of the brain were reduced to a greater degree than the concomitant blood supply. During relatively short periods of hypothermia and hyperventilation, the blood levels of sodium, calcium and chloride and the cerebrospinal fluid levels of sodium, calcium and inorganic phosphate remained practically unchanged.