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656 Hemodynamic Responses to Controlled 100% Oxygen Breathing in Emphysema. J.H. Holt and B.V. Branscomb. J. Appl. Physiol. 20, 215-220 (March, 1965).

Cardiopulmonary hemodynamic responses to breathing 100% oxygen for 20 minutes under conditions of controlled ventilation were studied in 13 patients who had moderate to severe chronic obstructive emphysema. A technique for regulating the level of ventilation in the unanesthetized subject is described. Cardiac output was measured by the indicator-dilution method. Arterial blood gas analysis and pH were performed in each phase of the study. A slight but statically significant decrease in cardiac index occurred. There was a highly significant reduction in pulmonary arterial pressure and pulmonary vascular resista No change in heart rate, pulmonary wedge pressure, or aortic pressure occurred. It is concluded that oxygen breathing caused a release in part at least, of a pulmonary vasoconstri element in these patients. -- J. Am. Med. Assn. References & Reviews

657 Chronic Obstructive Emphysema. The Thoracic Surgeon's Position. M. Joannides, Jr. J. Am. Med. Assn. 192, 365-367 (May 3, 1965).

Only a small number of patients with chronic obstructive pulmonary emphysema can look forward to help and relief from surgery. Resection or surgical obliteration of large emphysematous bullae affords relief in a high percentage of patients. There must, however, be strict criteria for the choosing of surgical candidates. A large stationary bulla of at least one-third the size of the hemithorax, or an expanding bulla accompanied by increasing dyspne are the most common symptoms of surgical candidates. Preoperative regimen includes seven days of expectorant therapy and intermittent positive pressure breathing treatments. The most important and informative preoperative procedure is a pulmonary angiograph. -- Author's abst

658 The Effect of Neodymium Laser Radiation on Two Experimental Malignant Tumor Systems. J.P. Minton, et al. Surg. Gynecol. Obstet. 120, 481 (March, 1965).

Neodymium laser radiation has been used to permanently destroy the Cloudman S91 melanoma in the CxDBA/F1 hybrid mouse and the Lewis T241 sarcoma in the C57BL/6JN mouse. The transfer of the neodymium laser energy into the tumor cells and an intense amount of heat in the target area is an important fact in tumor destruction. The size of the tumor receiving laser radiation, its ability to absorb laser energy, and the total amount of laser energy delivered to the tumor are all related to permanent tumor destruction. -- J. Am. Med. Assn. References & Reviews

659 Familial Leukemia. Five Cases of Acute Leukemia in Three Generations. C.W. Heath, Jr., and W.C. Moloney. New Engl. J. Med. 272, 882-887 (April 29, 1965).

Five cases of acute leukemia observed in three consecutive generations of one family over a sixty-year period are discussed. The three most recent cases were confirmed to be myelocytic. These cases were associated in one generation with two cases of breast cancer and possibly a case of pernicious anemia and in another generation with a case of mongolism; the paternal uncle of one patient died of chronic lymphocytic leukemia. Cytogenetic studies in one family member with acute leukemia and in her two healthy sons revealed no abnormaliti The pattern of leukemia cases within this family seems compatible with current concepts concerning the possible viral etiology of human leukemia. There are 27 references. -- Authors' summary

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