

PULMONARY EMBOLISM Ventilation scans (using nebulized ^{99m}Tc Technetium tagged to human serum albumin) and perfusion scans (using intravenously administered iodine-131 tagged to macroaggregated human serum albumin) were performed simultaneously and repeatedly on dogs following massive pulmonary embolization. Immediately following the episode, the affected lung showed decreased ventilation, and absent or reduced perfusion. Ventilation scans returned to normal after 48 hours, but perfusion scans remained abnormal for approximately a month. Acute hypoventilation of the affected lung was probably a result of various factors (increased surface tension, changes in tissue elasticity and increased airway resistance). Mechanisms involved in the return of normal ventilation despite continued absence or reduction of perfusion were not clear. (Wolfe, W. G., and Sabiston, D. C., Jr.: *Radioactive Ventilation Scanning in the Diagnosis of Pulmonary Embolism*, *J. Thorac. Cardiovasc. Surg.* 55: 149 (Feb.) 1968.)

FAT EMBOLISM Characteristic radiologic findings in six subjects with pulmonary fat embolism included diffuse loss of pulmonary radiolucency, diffuse parenchymal infiltrates, and obliteration of the peripheral vascular markings. The first clinical sign, tachypnea, was relieved by mechanical positive-pressure ventilation via tracheostomy with high oxygen concentrations. Cyanosis was present and was difficult to relieve despite the above treatment. Copious, viscid, sometimes bloody secretions developed so quickly and were so persistent that tracheostomy was necessary in all cases. (Acker, S. E., and others: *Pulmonary Injury from Post-traumatic Fat Embolism*, *Amer. Rev. Resp. Dis.* 97: 423 (March) 1968.)

FROZEN BLOOD The usefulness of frozen Group O. Rh-negative erythrocytes was evaluated in 36 acutely-injured combat casualties. The glycerolized cells, frozen at -80°C ., were stored for four to eight months. Erythrocyte loss *in vitro* was 26.7 per cent and the unit supernatant hemoglobin was 54 mg./100 ml. Following multiple transfusions, recipient

plasma hemoglobin rose 3.68 mg./100 ml. and recipient serum bilirubin increased 0.26 mg./100 ml. per unit received. There was no evidence of impaired renal function relative to transfusion. These data demonstrate the technical feasibility and clinical acceptability of frozen-banked blood as a satisfactory alternative to walking donors. (Moss, G. S., Valeri, C. R., and Brodine, C. E.: *Clinical Experience with the Use of Frozen Blood in Combat Casualties*, *New Engl. J. Med.* 278: 747 (April) 1968.)

DEXTRAN REACTION Dextran 70 (macrodex) and dextran 40 (rheomacrodex) were administered intravenously to healthy volunteers. Body temperatures, bleeding times and thrombocyte counts were not altered. Five of the first 24 individuals developed adverse clinical reactions, including: sweating, flushing, swelling of lips and pharyngeal mucosa, itching, puffiness of eyelids, nasal congestion, bradycardia, hypotension, tachypnea, weakness, nausea, and agitation. The remainder of the individuals received prophylactic diphenhydramine; two of seventeen developed reactions: blocking of the nose and injection of the conjunctivae or irritation of the throat, with coughing spells, congestion of throat and nose and tightening of the chest. It is postulated that reactions to dextran may be mediated by endogenous substances such as histamine. (Strebel, L., and Siegler, P. E.: *Experience with Clinical Testing of Dextran Solutions*, *Arch. Surg.* 96: 471 (March) 1968.)

METABOLIC ACIDOSIS In 14 burned patients, metabolic acidosis was maximal or shortly after admission. The degree of acidosis correlated well with the extent of the burn, but not with the thickness of tissue involved. Severe degrees of base deficit were usually compensated for by a respiratory alkalosis. When more than 30 per cent of the surface area was burned, the severity of the acidosis varied directly with the extent of the burn. (Peaston, M. J. T., and others: *Metabolic Acidosis in Burns*, *Brit. Med. J.* 1: 809 (March) 1968.)