

500 ml daily for three days, and 500 ml every other day until ambulation or discharge. Positive diagnosis of pulmonary embolism was made only if confirmed at autopsy or if supported by positive lung scans. There were eight confirmed and four unconfirmed but clinically suspected instances of pulmonary embolism in the control group within a month of operation. Only one documented pulmonary embolism, seven weeks after operation and five weeks after discharge, occurred in the treated group. Total platelet count increased by 35 per cent in the control group and remained unchanged in the treated group. Platelet adhesiveness increased 13 per cent in the control group and decreased 31 per cent in the treated group, while plasma fibrinogen increased 13 per cent in the control group and changed little in the treated group. Although dextran was not ideal for prevention of pulmonary embolism, it was the best available agent. (Atik, M., Harkess, J. W., and Wichman, H.: *Prevention of Fatal Pulmonary Embolism, Surg. Gynec. Obstet.* 130: 403 (March) 1970.)

PULMONARY EDEMA To investigate possible mechanisms leading to high-altitude pulmonary edema, venous distensibility and forearm blood flow were measured in healthy human subjects at sea level and at an altitude of 11,800 feet. Venous distensibility decreased significantly upon going to altitude and increased toward normal when the subjects were given supplemental oxygen. Exercise at altitude accentuated the venoconstriction and simultaneously decreased forearm blood flow. The venoconstriction in subjects who developed pulmonary edema at altitude was significantly greater than that in those who did not. There is a shift of blood from peripheral veins to the central circulation in man exposed to high altitude, reaching a maximum three to four days following ascent. The delay in development of the maximum changes suggests a process of acclimatization rather than a simple and immediate response to hypoxia. The peripheral arteriolar constriction with exercise at altitude is opposite to the dilation which occurs with exercise at sea level. If the pulmonary vascular bed acts in a similarly paradoxical manner upon ascent,

then the high resistance of the arterioles may decrease, thereby increasing capillary pressure. An alternative possibility is an increase in pulmonary venular resistance with exercise, causing capillary pressure to rise. These changes, increased pulmonary blood volume, and increased capillary permeability probably all contribute to the development of pulmonary edema. (Wood, J. E., and Roy, S. B.: *The Relationship of Peripheral Venomotor Responses to High Altitude Pulmonary Edema in Man, Amer. J. Med. Sci.* 259: 56 (Jan.) 1970.)

INTERNAL JUGULAR CATHETER

The internal jugular vein was cannulated for central venous pressure measurements and transfusions in approximately 1,000 patients. With the patient in the Trendelenburg position and the head turned to one side, a no. 14 Venocath needle (with a 2-ml syringe attached) was inserted into the skin two fingerbreadths above the clavicle at the outer border of the sternomastoid muscle. The needle was directed toward the suprasternal notch and puncture of the vein wall verified by easy aspiration of dark blood. The syringe was then removed and the Venocath threaded into the vein and fixed securely to the skin. Only three complications, all nonfatal, occurred in this series. These were air embolism, thrombophlebitis due to staphylococcal cellulitis at the site of the puncture, and perforation of the vein with mediastinal infusion of electrolytes. It was felt that these complications were avoidable. (Jernigan, W. R., and others: *Use of Internal Jugular Vein for Placement of Central Venous Catheter, Surg. Gynec. Obstet.* 130: 520 (March) 1970.)

POSTOPERATIVE HYPERTENSION

Hypertension after operative correction of aortic coarctation may occur immediately after surgery and persist for about 36 hours. A delayed unexpected ("paradoxical") unexpected hypertension may appear two to three days later and last about two weeks. Much less frequently, severe abdominal pain occurs, which on occasion has led to laparotomy or has caused death from necrotizing arteritis. Eighty patients underwent operations for correction of aortic coarctation. They ranged in age from