

Only one of these, phosphatidyl serine, which is present in both platelet and red cells but not in plasma, is able to substitute for the whole platelet lipid extract *in vitro* coagulation systems. The coagulant activity of phosphatidyl serine is enhanced by the presence of lecithin. Phosphatidyl ethanolamine, inactive alone, displays some coagulation activity when combined with lecithin and a lesser activity when combined with sphingomyelin. The coagulant activity of the complete platelet lipid extract can be reproduced by employing only the amounts of phosphatidyl serine and lecithin contained in the whole lipid extract. (Troup, S. B., and others: *Thromboplastic Factors in Platelets and Red Blood Cells: Observations on Their Chemical Nature and Function in "In Vitro" Coagulation*, *J. Clin. Invest.* 39: 342 (Feb.) 1960.)

THROMBOLYSIS Determination of the release of radioactivity from isotopically-labeled human plasma clots immersed in unaltered plasma is a sensitive measure of plasma thrombolytic activity. Using the isotopic clot assay, thrombolytic activity was determined in plasma from healthy adults, adults following stress and following the administration of drugs and from individuals with disease. The results indicate that plasma from normal adults contains a plasminogen activator capable of lysing human plasma clots under conditions similar to those seen *in vivo*. The quantity of this material varies in response to stress, drug administration and disease. (Sawyer, W. D., and others: *Studies on the Thrombolytic Activity of Human Plasma*, *J. Clin. Invest.* 39: 426 (Feb.) 1960.)

FIBRIN Fibrinogen concentration of adequately heparinized blood is unchanged by severe degrees of agitation for periods approximating surgical cardiopulmonary bypass times. The amorphous material deposited in the extracorporeal circuit is not fibrin removed from heparinized blood by mechanical trauma. The clot-like material occasionally seen on filter screens during experimental extracorporeal circulation is made up chiefly of fragmented red blood cells. (Gadbois, H. L., and others: *The Effect of Mechanical Trauma*

on Fibrinogen in Heparinized Blood, *Ann. Surg.* 151: 399 (March) 1960.)

PAIN Analgesia in humans increases phagocytic activity of leucocytes during severe pain and decreases it in dull pain. These changes are mediated via the influence of the central nervous system. (Pelts, D. G.: *Influence of Pain on Basic Immuno-Reaction. IV. Influence of Pain and of Analgesia on Phagocytosis in Humans*, *Zh. Mikrob. Epid. i Immunobiol.* 10: 70, 1958.)

CEREBRAL ISCHEMIA Total arrest of cerebral circulation in 55 dogs revealed that all animals subject to periods of cerebral ischemia up to ten minutes recovered completely. Certain transient neurological damage was noted in dogs subjected to a ten-minute period of cerebral anoxia. All dogs died in the immediate postoperative period without awakening after a 14-minute period of circulatory arrest. A greater tolerance to cerebral hypoxia than had previously been reported was accomplished by this method for two reasons: (1) The heart was very well oxygenated during the period of arrest of cerebral blood flow; and (2) A high venous pressure in the brain was prevented by allowing a small venous return through the azygos vein during the period of anoxia. (Brockman, S. K., and Jude, J. R.: *The Tolerance of Dog Brain to Total Arrest of Circulation*, *Bull. Johns Hopkins Hospital* 106: 74 (Feb.) 1960.)

VENTRICULAR FIBRILLATION Ventricular tachycardia and fibrillation were terminated by externally applied electric countershock more than 532 times in eight patients; five having survived for one month to two and a half years. Prevention of recurrent ventricular tachycardia and fibrillation in patients with complete heart block remains an unsolved problem. Drugs are largely ineffective; indeed, quinidine and procaine amide are contraindicated. External electric cardiac stimulation at rates above the basic idioventricular rate has been effective in preventing these recurrent ventricular arrhythmias, but long-term stimulation is difficult. (Zoll, P. M., Linenthal, A. J., and Zarsky, L. R.