

**HEPATITIS** A virus-like antigen may be transmitted by inoculation or ingestion of blood products from patients with acute hepatitis. The severity of the resultant hepatitis will depend partly on the dose of the hepatitis-associated antigen. The antigen appears in the blood before signs or symptoms of acute hepatitis develop, and in about 7 per cent of cases remains for an indefinite period after recovery. Although there is no test sensitive enough to detect the lowest levels of antigen (and presumably virus) that are infectious, the agar-gel-precipitin test detects the antigen in 0.1 to 0.5 per cent of normal American blood donors. Anticomplementary activity in sera of some hepatitis patients and blood donors may be caused by combining of the antigen with the antibody, and may be the only manifestation of the carrier state. Since the antigen has not been found in several outbreaks of short-incubation infectious hepatitis but has been found in many isolated cases diagnosed as infectious hepatitis, it is likely that similar clinical manifestations are produced by more than one virus group. (Shulman, N. R., Hirschman, R. J., and Barker, L. F.: *Viral Hepatitis*, *Ann. Intern. Med.* 72: 257 (Feb.) 1970.)

**HEPATITIS** Five patients with acute fulminant hepatic necrosis with coma were subjected to vigorous, massive, and prolonged plasmapheresis with plasma exchange. This was done on the theory that removal of the patient's own plasma would eliminate or reduce circulating noxious protein-bound factors responsible for coma and that replacement with fresh frozen human plasma would support the patient through the critical period required for hepatocyte regeneration. One of the five patients emerged from coma on the sixth day and another on the eighth day of plasmapheresis, but both ultimately died from bronchopneumonia. Plasma exchange in humans can be conducted without undue risk

and is more practicable and more in keeping with the pathology of hepatic necrosis than pig liver bypass or cross-circulation with humans, baboons, or chimpanzees. (Lepore, M. J., and Martel, A. J.: *Plasmapheresis with Plasma Exchange in Hepatic Coma: Methods and Results in Five Patients with Acute Fulminant Hepatic Necrosis*, *Ann. Intern. Med.* 72: 165 (Feb.) 1970.)

#### PLASMA EXCHANGE TRANSFUSION

Exchange transfusions with large quantities of whole blood have been used in the treatment of hepatic coma. However, this treatment exposes a seriously ill patient to more chances for incompatibility reactions. Recently, blood cells from patients in hepatic coma have been removed and combined with large quantities of fresh or fresh frozen plasma and returned to the patient. This, of course, involves the laborious process of plasmapheresis. This report describes the use of a continuous-flow blood cell separator developed at the National Cancer Institute to perform continuous plasma and whole-blood exchange transfusions. Exchange transfusions have been performed without serious complication from the procedure or from the use of blood products anticoagulated with heparin and ACD. This technique is simple, rapid, and safe. (Graw, R. G., Buckner, C. D., and Eisel, R.: *Plasma Exchange Transfusion for Hepatic Coma: New Technique*, *Transfusion* 10: 26 (Jan.) 1970.)

#### POLYCYTHEMIC DONORS

The transfusion of blood from donors with polycythemia produced no complications in 56 recipients, who lived from two to 13 years after receiving the blood. Blood from polycythemic donors produced the expected benefit in the recipients. Blood from healthy donors with polycythemia should be employed routinely. (Hyman, G. A., and Carlsen, E.: *Polycythemic Donors—Are they Useful and Safe?* *Transfusion* 10: 10 (Jan.) 1970.)