Literature Briefs

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Circulation

MASSIVE TRANSFUSION AND BLEEDING DIATHESIS Studies of blood coagulation in 21 wounded men, each receiving as many as 30 units of ACD blood during operation, were carried out. Clinically abnormal bleeding first appeared in some patients when more than 20 units of ACD-stored blood had been given. All patients receiving 30 units had abnormal bleeding when the platelet counts changed significantly; abnormal bleeding was observed at counts below 60,000/mm³ in every instance. This decline could be entirely accounted for by dilution with the platelet-free transfused blood. Fresh frozen plasma was of no value in correcting the bleeding tendency. However, fresh whole blood corrected the bleeding diathesis, as well as the low platelet count. (Miller, R. D., and others: Coagulation Defects Associated with Massive Blood Transfusions, Ann. Surg. 174: 794–801, 1971.)

CNS Function

HEMODYNAMICS OF HEXOBENDINE IN STROKE The effects of a new papaverine-like vasodilator, hexobendine, on cerebral hemodynamics and metabolism were evaluated and compared with the effects of inhalation of 5 per cent carbon dioxide. Ten patients who had had strokes three days to more than two months previously were studied. Hexobendine increased cerebral blood flow and decreased cerebral vascular resistance, but to a lesser extent than 5 per cent carbon dioxide. Cardiac work, however, while increasing significantly with carbon dioxide, did not change with hexobendine. The authors conclude that hexobendine is an effective cerebral vasodilator, which has the advantage of not increasing cardiac work, especially important in patients with marginal cardiac reserve. (McHenry, L. C., Jr., and others: Regional Cerebral Blood Flow and Cardiovascular Effects of Hexobendine in Stroke Patients, Neurology 22: 217–223, 1972.) Abstracter’s Comment: This study evaluated the cerebral vascular responses following a stroke after the initial changes in cerebral hemodynamics had stabilized. The effectiveness of vasodilator therapy in the acute stage, immediately following the stroke, is still unknown. Unfortunately, the studies were not designed to evaluate long-term effectiveness of vasodilator treatment; thus the answer to this clinically important question is still unavailable.

Respiration

PNEUMONIA IN SICKLE-CELL DISEASE It has been reported that, when exposed to Diplococcus pneumoniae infections, children with sickle-cell hemoglobinopathy have greater morbidity and mortality than normal children. Two immunologic defects, functional asplenia and decreased pneumococcal serum opsonins, have been demonstrated to exist, and may explain all or part of the increased susceptibility to the pneumococcal infection. Twelve episodes of Diplococcus pneumoniae bacteremia or meningitis, or both, were observed in ten children with sickle-cell anemia in a 4½-year period. The infections, caused by eight serotypes of Diplococcus pneumoniae, were frequently fulminating, and two patients died despite appropriate therapy. Seven patients needed transfusions with packed erythrocytes. Patients with sickle-cell anemia accounted for 7.3 per cent of children admitted with pneumococcal infections. On the other hand, pneumococcal infections were present in 2.8 per cent of children with sickle-cell anemia. (Seeler, R. A., Metzger, W., and Mufson, M. A.: Diplococcus pneumoniae Infections in Children with Sickle Cell Anemia, Amer. J. Dis. Child. 123: 8–10, 1972.)