ABSTRACTS

Ernst R. Jaffé, M.D., Editor

Klaus Betke, M.D., München, Germany
Arthur Bloom, M.D., Cardiff, Wales
T. H. Bothwell, M.D., Johannesburg, South Africa
T. E. Brittingham, M.D., Nashville, Tenn.
Jacque Caen, M.D., Paris, France
J. B. Chatterjee, M.D., Calcutta, India
F. J. Cleton, M.D., Leiden, The Netherlands
Pietro de Nicola, M.D., Pavia, Italy
Ludvik Donner, M.D., Prague, Czechoslovakia
Katsuhiro Fukutake, M.D., Tokyo, Japan
Robert Goldstein, M.D., New York City
Ira Green, M.D., New York City
F. W. Gunz, M.D., Sydney, Australia
Susan R. Holló, M.D., Budapest, Hungary
Harry S. Jacob, M.D., Boston, Mass.
Michel Jamra, M.D., Sao Paulo, Brazil
Joseph Kassirsky, M.D., Moscow, U.S.S.R.
Sven-Age Killmann, M.D., Copenhagen, Denmark
Frederick A. Klipstein, M.D., New York City
Colin Macpherson, M.D., Columbus, Ohio
Georges Mathé, M.D., Paris, France
Thomas F. Necheles, M.D., Boston, Mass.
Bracha Ramot, M.D., Tel Aviv, Israel
Peter G. Reizenstein, M.D., Stockholm, Sweden
Zoran Rolović, M.D., Belgrade, Yugoslavia
Edgardo S. Sack, M.D., Buenos Aires, Argentina
Julian B. Schorr, M.D., New York City
Ralph O. Wallerstein, M.D., San Francisco, Calif.

HEMOSTASIS


Injection of purified coagulant fraction of Malayan pit-viper venom into rabbits previously transfused with radioactive fibrinogen resulted in a fall of plasma fibrinogen, followed by a rise of nonclottable radioactivity thought to be due to lysis of microemboli. Plasma hemoglobin levels rose as fibrinogen levels fell; the degree of hemolysis correlated with the rate of defibrination. Fe* labeled red cells were lysed when injected before or up to 15 minutes after the coagulant fraction, but not when injected later than this. Hemolysis still occurred when clot lysis was inhibited, but did not occur when coagulant material was injected into afibrinogenemic rabbits. The findings confirmed an association between intra-vascular coagulation and hemolysis and indicated that red cell damage occurred during or as a result of microthrombus formation.—A. L. B.


A group of diphenyl-dioxopyrazolidine derivatives with anti-inflammatory activity was subjected to the von Kaulla test for fibrinolytic activity. The compounds which exhibited anti-thrombotic effectiveness in the clinic also had a marked fibrinolytic activity. These findings permitted the assumption of a parallelism between the anti-thrombotic properties of some anti-inflammatory compounds and their capability of participating in the fibrinolytic process.—L. D.


Fibrinolytic activity, measured by euglobulin lysis time, was markedly increased after strenuous exercise by trained athletes and, to a lesser but still significant degree, after moderate exercise by untrained normal subjects. In untrained subjects, fibrinolytic activity increased maximally within 1.5 minutes of commencing exercise; no further increase was produced by prolonged exercise. Increased activity persisted for at least an hour after cessation of exercise.—A. L. B.
ABSTRACTS


Cationic proteins from polymorphonuclear leucocyte lysosomes possess potent antimicrobial activity, are pyrogenic and produce inflammation and tissue injury. Lysoosomal cationic proteins also are very potent inhibitors of blood coagulation. They appear to inhibit formation of intrinsic thromboplastin by interfering with the role of phospholipid (possibly platelet membranes) in the reaction involving Factors V, X and calcium.—T. E. B.


The coagulation mechanism in 30 cases of uremia was compared with that in 25 normals. In the uremic group, bleeding time was prolonged in 40 per cent, prothrombin time was increased in 27 per cent and TGT was poor in 50 per cent. The blood urea levels could not be correlated with the bleeding and prothrombin times. A definite relationship, however, was observed between an abnormality in TGT and high blood urea values.—J. B. C.


The life span of homologous Cr1-labeled platelets from Rh-positive donors in Rh-negative, anti D-sensitized and non-sensitized recipients was 6.9 (S.D.±1.7) days in sensitized and 9.7 (S.D.±1.2) days in non-sensitized individuals. A similar shortening of life span, however, was observed with platelets of Rh-negative donors in anti D-sensitized recipients.—K. B.


Studies in vitro showed that the yield of Factor VIII was nearly 45 per cent, while the Factor VIII-fibrinogen ratio was unchanged when compared to fresh plasma. Factor VIII activity, on a protein basis, was purified 13 fold. The recovery of transfused Factor VIII did not differ significantly from 100 per cent in all cases, regardless of the severity of the hemophilia. The disappearance curve of Factor VIII transfused as cryoprecipitate was similar to that observed after transfusion of fresh plasma: an initial steep slope component with a T½ of 4 hours and a second component with a T½ of 14 hours. The hemostatic effect in two operations was excellent. A minimum requirement of cryoprecipitate from 250 units of blood was calculated to be safe substitution of Factor VIII in adult with severe hemophilia. Except for one case of hepatitis, no untoward reactions were observed. First rate quality, outstanding simplicity and blood bank economy allowed the use of cryoprecipitate as a routine.—F. J. C.


Isolated organs of normal dogs and of dogs hemizygous or heterozygous for classical hemophilia were irrigated with citrate-saline and then were perfused with hemophilic blood with a pump-oxygenator circuit. Considerable Factor VIII was released from the perfused spleen of normal dogs and of those heterozygous for hemophilia and lesser amounts were released from perfused liver and hind limbs. No Factor VIII was released from normal lung or kidney or from hemophiliic spleen. The spleen and possibly other organs containing reticulo-endothelial elements may be sites of Factor VIII production or storage.—A. L. B.


A simple and reliable method for the assay of Factor VIII, based on the thromboplastin genera-
tion test, was described. Plasma from hemophilic subjects was not required. Rabbit serum was the source of Factor V and serum factors. Adsorption of standard or test plasma with alumina gel was not an essential step and could be omitted.—J. B. C.


Two brothers with severe Factor IX deficiency were found to have prolonged prothrombin times when plasma was tested with ox-brain reagents, but not when tested with human brain extract. The mother and maternal grandmother had levels of Factor IX at the lower normal range and a similar, but much less severe, prothrombin time abnormality. The reactions of the patients' plasma in prothrombin time systems indicated that the prolonged time was due to the presence of an inhibitor. The authors suggested that their patients suffered from a variety of Christmas disease in which an abnormal molecular analogue of Factor IX which was inhibitory in extrinsic clotting systems utilizing animal brain was inherited. The condition was named hemophilia BM, the subscript referring to the name of the propositus.—A. L. B.

ERYTHROCYTES


The structural difference between the normal (B+) and the common Negro variant (A+) of human glucose-6-phosphate dehydrogenase was elucidated by fingerprinting the peptides obtained on tryptic digestion. A single amino acid substitution, asparagine in the normal enzyme replaced by aspartic acid in the variant enzyme, was found. —H. H. F.


A family of mixed Negro, Caucasian and Cherokee Indian ancestry was reported with marked elevations of erythrocyte and leukocyte G-6-PD, especially in males. Transmission of the trait was compatible with X-linkage. No obvious clinical or hematologic manifestations were evident although the rate of methemoglobin reduction with added redox dyes was slightly greater than normal. Studies with erythrocytes so affected may be useful in furthering the understanding of the role of the HMP shunt in red cell viability.—H. S. J.


Isotopic sodium efflux from elliptocyte ghosts prepared by osmotic lysis was increased over that from normal ghosts. The ouabain-inhibitable component was involved and "passive efflux" (ouabain-unresponsive) was similar in both ghost types. Remarkably rapid efflux was noted in one patient whose red cell morphology was especially bizarre. No data utilizing intact red cells were presented. —H. S. J.


Deviations from normal were found, especially in sodium content. Most patients with cirrhosis of the liver and with chronic renal failure had a lowered sodium content in erythrocytes. In patients suffering from congestive heart failure, an increased frequency of alterations in sodium values in either direction was observed.—B. R.


Studies with erythrocytes of hereditary spherocytosis showed an enhanced rate of glucose consumption and lactate formation, presumably due to the increased number of reticulocytes. A limitation in the hexose monophosphate shunt pathway was found in both splenectomized and
non-splenectomized patients, but the changes were not characteristic of hereditary spherocytosis. —J. B. C.


A woman of 26 was thought to have "aplastic anemia" for 4 years because of anemia, leukopenia and thrombocytopenia, despite the fact that the sternal marrow was hypercellular with macro-normoblastic hyperplasia. Several crises of abdominal pain associated with dark urine pointed to the diagnosis of P.N.H. The clinical course was benign; some periods were asymptomatic with almost normal cell indices. Alkaline phosphatase activity in neutrophils was low on several occasions. Marrow siderocytes (15 per cent), sideroblasts (30 per cent) and hemosiderin content were not low as was to be expected in P.N.H. with iron loss through hemosiderinuria. In aplastic anemia, bone marrow iron stores and hemosiderin were elevated. The differential diagnosis of aplastic anemia and P.N.H. was considered.—M. J.


The disadvantages of methods used for determination of erythropoietin in plasma and urine were discussed and a new immunologic method was developed. Antiserum against rat erythropoietin was produced in the rabbit. The antiserum cross-reacted with human erythropoietin, forming only one line in Ouchterlony plates and on immuno-electrophoresis. Endogenous erythropoietin activity in the normal rabbit could be neutralized by the antiserum which also inhibited human erythropoietin activity in the mouse assay. Human erythropoietin activity in plasma and urine was measured with the double diffusion technique. Dilutions of plasma and urine were compared with dilutions of an international WHO standard. This method appeared to be more practical than any biologic method and probably was more sensitive. —F. J. C.


Glomerular filtration rate, after correction of anemia associated with uremia, was studied in 17 patients. Transfusions of blood or packed erythrocytes did not produce any deterioration in renal function and the correction of anemia appeared to be indicated.—B. R.

IRON DEFICIENCY IN HEALTHY YOUNG COLLEGE WOMEN. D. E. Scott and J. A. Pritchard. From the University of Texas Southwestern Medical School, Dallas, Tex. J.A.M.A. 199:147–150, 1967.

Bone marrow aspirations stained for hemosiderin were obtained from 114 apparently normal college women. Twenty-four per cent had no stainable iron and 42 per cent had only a trace to 1+ iron. Serum iron and transferrin levels were less sensitive indicators of iron deficiency; in only one-third of individuals with 0 or trace marrow iron was serum transferrin saturation less than 16 per cent. The authors could not substantiate the claim that iron deficiency may lead to excessive menstruation. The iron deficient women did not absorb iron much better than normals and repair of iron deficiency by diet was very slow. Supplemental iron therapy was recommended for clinical iron deficiency.—R. O. W.


In normal individuals, EDTA and DTPA reduced absorption of Fe⁺⁺ when given together with it in 10:1 or 50:1 molar ratios, but not with lower ratios. Fructose, another chelating agent in experimental animals, increased absorption when given to volunteers in a 50:1 molar ratio, but not at a lower ratio. Iron-fructose chelate might be a useful agent for the treatment of iron-deficiency anemia. Wines containing fructose might promote siderosis in alcoholics.—F. W. G.


Mature red cells, when incubated with plasma containing Fe⁺⁺, took up iron which was not bound
Ferrin; in hemoglobin, but appeared to be attached to transferrin. The iron was not incorporated into hemoglobin, but appeared to be attached to stromal iron acceptors of which there appeared to be a finite number. Red cells from patients with saturated transferrin took up less iron than those from patients with only partially saturated transferrin; in the former, there were evidently more acceptor sites occupied than in the latter.—F. W. G.


Serum folate concentrations were found to be subnormal in 18 per cent of 62 women at the termination of a normal pregnancy, in 11 per cent of 72 women who had an early abortion, in 44 per cent of 63 women who had third trimester bleeding and in 94 per cent of 16 women who had abruptio placenta. Red cell folate activity, normal in all women tested with a normal pregnancy, was subnormal in 9 of 14 tested with third trimester bleeding and in all 9 tested who had abruptio placenta. The authors proposed that the high incidence of folate deficiency in women with third trimester bleeding and abruptio placenta might have a causal relationship.—F. A. K.


Serum and whole blood folate levels of premature infants were comparable at birth to those of full-term infants. By age 2–3 months, however, the levels in premature infants had fallen well below those of full-term infants. Some premature infants with low serum folate levels had abnormal urinary FIGLU excretion after a histidine load at this age. Although the three infants with the lowest hemoglobin levels responded well to folic acid therapy, there was no evidence of a general correlation between hemoglobin level and folate status. Low folate stores were thought to be due to inadequate dietary intake consequent to the low folate content of some dried milk preparations.—A. L. B.


Serum folate concentrations were subnormal in 6 of 12 subjects with moderate and 5 of 7 subjects with severe renal failure, as well as in 9 of 10 patients who were receiving long-term hemodialysis. Bone marrow examinations in subjects of the latter group showed megaloblastic erythroid abnormalities in 5 and granulocytic abnormalities in 4. Treatment with folic acid resulted in improvement in the erythroid series, but granulocytic abnormalities persisted in 2 cases. Studies in vitro confirmed the dialyzability of folic acid and, along with the low predialysis values, probably accounted for the subnormal serum values found in patients receiving dialysis.—F. A. K.


Two modifications of the previously described technic for determining folic acid absorption by measuring fecal radioactivity after an oral test dose of H'FA were used. Fecal samples were prepared by wet oxidation with acid potassium permanganate and H2O2 and the absorption of H'FA was calculated in a single stool specimen by using the ratio of fecal excretion of H'FA to that of Cr6+. Control subjects absorbed more than 60 per cent of an oral test dose and 8 of 17 patients with tropical sprue absorbed less than 50 per cent.—F. A. K.


Results of detailed investigations in nutritional megaloblastic anemias in West Bengal were reported and were compared with those from other parts of the tropics. The deficiencies were: folate in 50 per cent, folate and B6 in 30 per cent and B12 in 20 per cent. The deficiencies were usually dietary in origin. The so-called malabsorptive syndrome associated with megaloblastic anemia was predominantly an effect of dietary deficiency.—J. B. C.

In 24 cases of tropical sprue, serum folic acid levels were reduced in 17 with associated B$_{12}$ deficiency in 5. Neurologic signs were present in 3. Serum B$_{12}$ was reduced in 7 with normal folic acid levels in 2.—J. B. C.


The diagnostic significance of parietal cell antibodies was investigated in a series of clinical and laboratory studies performed in a number of antibody-positive subjects with or without established pernicious anemia. Parietal cell antibodies were demonstrated by means of the indirect immunofluorescence technic of Coons and Kaplan. Complement-fixing gastric and intrinsic factor antibodies were also demonstrated. Parietal cell antibodies were found in 87.4 per cent of 127 patients with pernicious anemia. There was no difference in the sex incidence and no relation to age. There was an increased incidence of parietal cell antibodies in Hashimoto's disease (33 per cent), primary myxedema (31.2), thyrotoxicosis (26.7), diabetes (12.1) and gastric cancer (2.7). The incidence in normal controls was 2.9 per cent. In 33 patients with various diseases, 25 had no HCl in the gastric juice and most of them had a diffuse atrophic gastritis. Antibodies against intrinsic factor were detected in 5 of the 33. This finding was associated with severe structural changes in the gastric mucosa, but not necessarily with an impairment of vitamin B$_{12}$ absorption.

In 128 of 529 blood relatives of 60 patients with pernicious anemia and in 5 of 114 allied relatives (controls) parietal cell antibodies were found. Antibodies were also found in 41 of 123 children of 42 antibody-positive individuals whose partners were antibody-negative. The evidence favored the hypothesis that the development of parietal cell antibodies was controlled by one heterozygous autosomal dominant gene. The various manifestations of pernicious anemia, such as parietal cell antibodies, gastric achlorhydria and impairment of vitamin B$_{12}$ absorption, may be regarded as expressions of one pleiotropic pattern, the development of which was controlled by a single dominant autosomal gene.—F. J. C.


Hemoglobin D was detected for the first time in Bengalees. Of 16 subjects, only one came for investigation of hemolytic anemia. All of the others were detected either during family studies or on routine examination for a hemoglobinopathy. Hemoglobin D concentrations varied from 27 to 45 per cent in 9 subjects with D trait and 38 to 92 per cent in 7 patients with D-thalassemia. In one subject with hemoglobins D and E, the amount of D and E was 61.4 and 36 per cent, respectively.—J. B. C.


Moderate to marked elevations of total, copro- and uroporphyrins occurred during painful and febrile crises in 18 patients with sickle cell disease, but not during asymptomatic periods. Similarities between the clinical features of the painful crises and acute porphyria were stressed and these observations may point up an important new direction for further clinical investigation.—H. S. J.


Analyses of data of Hb-A2 and HbF in homozygous thalassemia patients and their parents showed a variety of genetic interactions. Thus, there may be interaction of beta x beta, alpha x alpha, beta x alpha, beta-delta x alpha, beta-delta x beta and beta-delta x beta-delta chains.—J. B. C.


On the basis of TPN levels, the Hb.E-thalassemia patients could be separated into two groups. In one, the TPN level was normal with normal GSH stability and G-6-PD values. In the other group, TPN values were low and the GSH was unstable in the presence of normal C-6-PD and GSSG-R activities.—J. B. C.

A patient with erythroleukemia developed a low concentration of hemoglobin A₂ during the course of his illness. It was suggested that this defect was acquired because of an imbalance in globin chain synthesis resulting from the leukemic process.—A. L. B.

LEUKOCYTES


Both rabbit (RARLP) and dog (DARLP) anti-rat lymphocyte plasma had comparable titers of agglutinating and cytotoxic antibodies directed against rat lymphocytes. The former was a potent immunosuppressive agent in the rat. Despite repeated testing in two different experimental systems, the DARLP used in these experiments did not have any immunosuppressive effect on the rat. The ability of a heterologous anti-lymphocyte plasma to depress the immune response of rats may be related, in part at least, to factors other than its content of agglutinating and cytotoxic antibodies. Added support for this view was provided by findings which indicated that different pools of RARLP varied in immunosuppressive potency, despite containing comparable titers of agglutinating and cytotoxic antibody against rat lymphocytes. At the present time, no satisfactory test appeared to be available for determining whether or not a preparation of heterologous anti-lymphocyte plasma was likely to be an effective immunosuppressive agent.—T. E. B.


Injection of rabbit and horse anti-lymphocyte sera into hooded rats inhibited the primary humoral antibody response to sheep erythrocytes but had a much less marked effect on the secondary response. Antibody fragments were not effective in suppressing the reaction and the major immunosuppressive activity was associated with intact IgG. Furthermore, only whole antisera and intact IgG antibody exhibited lymphocytotoxic activity in vivo and in vitro, although the preparation of horse IgG was only slightly cytotoxic in vivo. Preparations of purified IgG possessing antilymphocyte activity may have advantages over whole antisera for use in transplantation.—A. L. B.


In normal dogs, a normal gamma globulin, synthesized especially in the spleen, appears to bind to autologous red cells and may be responsible for maintaining normal red cell survival. When levels of this gamma globulin are reduced, as for months following splenectomy, the affected animals’ red cells have a short half life. This shortening apparently can be prevented by supplemental administration of the appropriate globulin. An important function of the lymphoid system may be to maintain the erythron at normal levels.—T. E. B.


Prednisolone has cytotoxic effects on normal human blood lymphocytes in vitro and inhibits blastoid transformation in lymphocytes when the latter are subsequently exposed to PHA. The usually highly radiosensitive lymphocytes, in the presence of PHA, survive high doses of X-ray. Prednisolone suppresses this acquired radioresistance when introduced 24 hours before PHA. Each of these effects of prednisolone is reduced or lost when it is introduced after PHA. In tissue transplantation, corticosteroids might function as much more effective immunosuppressive agents if administration is begun before host reaction to a graft has started.—T. E. B.

IN VITRO BACTERICIDAL CAPACITY OF HUMAN POLYMORPHONUCLEAR LEUKOCYTES: DIMINISHED

Diminished bactericidal activity was found to be characteristic of polymorphonuclear leukocytes (PMN) from five children with the clinical syndrome of granulomatous disease of childhood. The PMN demonstrated nearly normal phagocytic capacity, but a striking difference in the cytoplasmic response after phagocytosis. Degranulation, vacuole formation and rapid bacterial digestion were the rule in PMN from controls, but little degranulation and persistence of bacteria in the cytoplasm were typical of the PMN from the patients. It was suggested that separate metabolic processes are involved in phagocytosis and in intracellular digestion.—T. E. R.


An adult group B male, suffering from acute myeloid leukemia, had 12 per cent O-like cells which were not agglutinated by several potent anti-B or anti-AB sera. The presence of B-like antigenic sites was confirmed by double sensitization and elution.—J. B. C.


An antigen, detected by the method of fluorescent antibodies and which could not be detected in control mice, was described in leukemic cells of liver and spleen of CBA mice bearing a leukemia transmitted by cell-free filtrates.—L. D.


Of 169 patients treated for lymphogranulomatosis between 1951 and 1960, therapeutic results in 58 patients with mediastinal localization in different stages of the disease were evaluated. Treatment consisted of radiotherapy or the combination of radio- and chemotherapy. In the largest group, with stage II disease, substantially better results in average duration of remission and in total survival rate were achieved with the combination of radio- and chemotherapy. In stage III, no difference between the two therapeutic methods was observed. During combined therapy, no serious hematologic complications were observed.—L. D.


There was no essential difference between granulomatous reticuloses and malignant lymphogranuloma in this series of 179 post mortems and
703 biopsies. A number of structural variants (epithelioid, lymphoid reticular, giant cell, etc.) could be differentiated and this differentiation was sometimes useful. Regressive changes with necrosis, inflammatory components, cicatrization could be present in different tissues of the same patient. The unusually low incidence of tuberculosis (less than 4 per cent) was surprising, as was the relatively high incidence of amyloidosis (7 per cent). Parasitic complications (pneumocystis, toxoplasmosis) have appeared, in addition to diseases caused by fungi and yeasts (candidosis, aspergillosis, cryptococcosis). The prognosis of fully developed malignant lymphgranuloma was very unfavorable, but there were exceptions, even in cases where the diagnosis of malignant lymphgranuloma was in dispute.—L. D.


Myelobromol (1,6-dibromo-1,6-didesoxy-D-mannitol) was given to 12 patients with chronic myelosis. The consistent therapeutic effect, even in busulphan- and actinotherapy-resistant cases, indicated that Myelobromol was an effective cytostatic agent.—L. D.


A detailed classification was made of a series of 100 cases, selected from 482 biopsies and 141 post mortems with a diagnosis of reticulosis and reticulosarcoma. Six cytological types occurred: 1) Primitive mesenchyme type-2 per cent. 2) Histiononocytic type-8. 3) Lymphoid-reticular type-30. 4) Large cell type from phagocytosing reticular cells-30. 5) Pleomorphic type-30. 6) Transitional type-10 per cent, with the subgroup of fibroplastic tumors heavily represented.—L. D.


In a series of 121 myelomas, the most frequent cause of death was uremia (28 per cent) with myelomatous nephrosis in 47.6 per cent and 9.9 per cent died from septic complications. Secondary amyloidosis occurred in only two cases, but a typical amyloid was found in nine. Neoplastic infiltrations of the liver were present in about 30 per cent. Plasmocytes were present in spleen and lymph nodes in 40 per cent but were present in sufficient numbers to provide convincing evidence of malignancy in only 7 per cent. Infiltrated organs were not always enlarged. Bone marrow was often atrophic, but at times it was hyperplastic. Lymphoid reticular cells and atypical megakaryocytes were not always a component part of the neoplastic process, but were often a component of secondary hyperplasia of the marrow which, in exceptional cases, ended in myelofibrosis. Septic complications and hemorrhagic diatheses were found less often than in other hemoblastoses.—L. D.

MISCELLANEOUS


A new phenotype, Hp 2-1 Bellevue, is described. This phenotype may be the result of an abnormal hpβ chain under the control of a locus separate from and not linked to Hp which controls the structure of the L chains of haptoglobin. The term Bp*, Bp', and Bp" are suggested for the locus, the normal type, and the mutant alleles, respectively. Two additional phenotypes, found in members of the family, are tentatively designated Hp 1-1 Bellevue and Hp 2-2 Bellevue. All these Hp types form hemoglobin complexes with abnormal immunologic properties and all, except Hp 1-1 Bellevue, can be distinguished from the common phenotypes by starch gel and acrylamide electrophoresis.—H. H. F.


The hp1Fa and hp1Sa components contain one internal disulfide bridge and hp2a contains two such
bridges. After reductive cleavage, these bridges are readily re-formed, even in the presence of 8 M urea. The complex differences in native haptoglobins are consequences of variations in the \( h_{p\alpha} \) polypeptides controlled by the \( H_p \) locus. The \( h_{p\beta} \) components, probably derived from a second polypeptide chain, are not affected by variations in the genotype at the \( H_p \) locus. The yields, sedimentation behavior and molecular weights of the 1a polypeptide \( (8900 \pm 400) \) and of the 2a polypeptide \( (17,3000 \pm 1400) \) indicate that the 2a polypeptide is approximately twice the size of the 1a polypeptide.—H. H. F.


Storage reticuloses are malignant neoplastic processes which differ from other reticuloses by being accompanied by metabolic disturbances of lipids, carbohydrates or proteins. They are rare. In 20 years, there were only five cases of Gaucher’s disease, three of Niemann Pick’s disease, two of Hand-Schüller-Christian disease, two possible cases of “reticulogranuloma” and two local forms of this disease. Of eight cases with disorders of protein metabolism, three had the Waldenström syndrome, three had paraproteinemias, and two were accompanied by other metabolic disorders involving proteins, carbohydrates and lipids.—L. D.


In studies of opsonic activities of antibodies to *Proteus mirabilis* in a leukocyte-bacterial phagocytosis system, \( \gamma G \) antibody was superior to \( \gamma M \) in enhancing phagocytosis. This superiority was a reflection of the influence of antibody on uptake of bacteria, rather than of an effect on the intracellular fate of the organisms. This difference in function of the two classes of immunoglobulins may explain certain clinical observations which indicate that \( \gamma G \) antibodies are more protective against infection than are \( \gamma M \) antibodies.—H. H. F.


Twenty-eight courses of mannitol-busulphan (Mannogranol Chinoin; 1,6-dimethane-sulphoxy-D-mannitol) were administered to 16 patients with carcinoma of the ovary, 18 times with a favorable effect. The temporary remissions were from 2 to 10 months in duration.—L. D.