ABSTRACTS OF SPECIAL INTEREST


Complement-fixing antibodies to saline extracts of gastric mucosa were found in 75 per cent of patients with pernicious anemia and in 22 to 29 per cent of patients with thyroid disease. Thirty-seven per cent of patients with pernicious anemia also had thyroid antibodies.—I. C.


In rats thymectomized at birth and tested in adult life, ability to develop autoallergic encephalomyelitis was completely suppressed, there was a marked diminution in the degree of tuberculin sensitization appearing after a single injection of mycobacteria in oil, rejection of skin homografts was markedly delayed, yet adjuvant arthritis was not appreciably affected. At the same time there was a striking decrease in the circulating level of small lymphocytes.—T. E. B.


An abnormal leukocyte response to inflammatory stimuli was observed in skin windows of patients with interstitial cystitis. The response was characterized by an increase in basophilic granulocytes locally and has to date been demonstrated in only one other disease, ulcerative colitis. —T. E. B.


Chromosome analyses were carried out on bone marrow cells in four untreated patients with multiple myeloma. A direct method was used which avoids culture procedures. No abnormalities were
detected in three cases showing the electrophoretic patterns of the types β, γ or M (abnormal fraction with mobility between beta and gamma). The fourth case was a 61-year-old male with a serum electrophoretic pattern of the α-2 type. The clinical and laboratory diagnosis of multiple myeloma was later confirmed at postmortem examination. Fifty metaphases were counted, 16 having 46 chromosomes and 34 having 45. The cells with 46 chromosomes had an apparently normal karyotype and were considered as normal erythroblasts in mitosis. In all cells with 45 chromosomes, one small acrocentric was missing. The study of this case is still in progress, and it is not certain whether the missing chromosome is the Y or one of the small acrocentric autosomes. There is also no evidence of a translocation involving the small acrocentric or part of it with another chromosome. Although not proved, a translocation must be the most likely mechanism in this case, rather than a loss of a whole small chromosome. This is another hemopoietic disorder which seems to be linked to an abnormality of one of the small acrocentric chromosomes.—M. J.

### PARTIAL DELETION OF A CHROMOSOME SEGMENT IN A CASE OF ACUTE LYMPHOPLASTIC LEUKEMIA


Some 12 per cent of the white cells in the peripheral blood and bone marrow of a child with acute lymphoblastic leukemia were shown to carry a hitherto undescribed chromosomal anomaly: deletion of the long arm in one of the medium size chromosomes, probably #10.—G. M.

### TWO CASES OF ACUTE MYELOGENOUS LEUKEMIA WITH BOTH NORMAL AND HAPLOID CELLS


The authors report of two cases of acute myeloid leukemia exhibiting two populations of white blood cells, one being normal, the other haplo 21 or 22.—G. M.

### LEUKOCYTES


Cellular exudates rich in eosinophils were obtained from the peritoneal cavities of mice immunized with tetanus toxoid. Observation with phase microscopy of fresh exudates showed that eosinophils were attracted to a certain few of the mononuclear cells present, including lymphocytes, macrophages, and mesothelial cells. Neutrophils did not seem to be attracted to these same mononuclear cells.—T. E. B.

### ANCOSINOPHILIA IN A PATIENT WITH BRONCHIAL ASTHMA


In a patient with bronchial asthma, no blood eosinophils could be demonstrated in 31 consecutive counts. No eosinophils were present in the marrow. At autopsy, no eosinophils were found in the liver and spleen. The lack of eosinophils could not be ascribed to endogenous or exogenous hypercorticoidism. Three grandchildren showed low eosinophil counts whereas other relatives had counts within the normal range.—S. A. K.

### RECOGNITION OF TRANSFORMED SMALL LYMPHOCYTES BY COMBINED CHROMOSOMAL AND ISOTOPIC LABELS


Small lymphocytes from adult male rats were labeled with tritiated thymidine and injected into newly born female rats. Large pyroninophilic cells, which were labeled with tritium and which had the large Y chromosome of the male, were demonstrated in the spleen and lymph glands of the recipient female rats killed 30 hours after the injection. These results demonstrate that small lymphocytes are not necessarily end-cells but can, after appropriate stimulation, transform into cells that are rapidly enlarging and proliferating.—I. C.

### ROLE OF THE THYMUS IN NEONATAL LIFE


The importance of the thymus gland in the establishment of immune responses in early life has been receiving attention. Thymectomy was carried out in mice within the first 24 hours of birth. The animals became lymphopenic and died...
ABSTRACTS


Increased γ-globulin concentrations (paper electrophoresis) were found in 22 of 25 patients with mongolism. Immunoelectrophoresis showed covariation of the immune-globulins (γ, β₂A and β₅M).—S. A. K.


Folinic acid activity in separated normal and leukemic leukocytes was studied by a microbiologic assay. Most of the folinic activity seemed to be present in several different bound forms rather than being free. Leukemic leukocytes are believed to contain higher concentrations of folinic acid than do normal mature leukocytes, but in the present study the differences between the two groups of leukocytes were not striking.—T. E. B.


In a bicarbonate-containing incubation medium (but not in other media), leukocytes from adult diabetic subjects showed both less glucose uptake and less response of glucose uptake to the in vitro addition of insulin than did leukocytes from normal subjects. These findings are considered compatible with the known decreased glucose utilization and decreased insulin responsiveness in human diabetes of the maturity-onset type.—T. E. B.


A simple histochemical method for demonstrating alkaline phosphatase activity in leukocytes is described. The method described is believed to show increased sensitivity in comparison with other methods now in use.—T. E. B.


Neutrophil alkaline phosphatase (NAP) was studied by a semiquantitative cytochemical method in 665 patients without blood diseases. Most had acute inflammatory diseases or surgical operations. Peak values of NAP were found 3 days following operations, with a return to normal within 10 days in uncomplicated cases. Prolonged rises occurred in infections. NAP levels reflected the progress of acute inflammation and were of value in diagnosis. In 4 per cent of cases, no rise in NAP occurred in the presence of inflammation. Two patients had raised NAP for which no cause was found.—F. W. G.


Immature cells in acute and chronic myelocytic leukemia always show dihydrofolate reductase activity. This enzyme is specifically inhibited by aminopterin and methotrexate. It is probable that a new increase in enzyme activity is the cause of therapy resistance to folic acid antagonists. A description of an optical test for the estimation of dihydrofolate reductase is given.—H. M.


Normal human venous blood preserved with ACD solution was stored at 4 C. Aliquots were removed for tissue culture at varying intervals, and the cultures were then studied for mitotic activity. A significant degree of mitotic activity was found in mononuclear leukocytes cultured from preserved whole blood stored for as long as 22 days, though the number of cells apparently capable of mitosis decreased sharply after the first 9 days of storage.—T. E. B.
A New Method for Preparing Buffy Coat-
poor Blood. T. J. Greenwalt, M. Gajewski and J. L. McKenna. From Marquette University
School of Medicine, Milwaukee, Wis. Trans-

The procedure described removes the granulocy-
cites from heparinized whole blood by passing it over a column of Nylon fibers in 10–15 min-
utes. Only 5 per cent of the donated blood is re-
tained in the column, and the white blood counts of the final products are 500–3100 per cu. mm.
with 95–100 per cent of the white cells being lymphocytes. Cr51 RBC survival studies suggest
that the preparations described withstand storage satisfactorily for 14–21 days.—T. E. B.

The Influence of Large Parenteral Doses of
Vitamin B12 on Degree of the Segmentation
of the Neutrophil Leukocytes in the Aged.
G. Brischke and H. Herrmann. From the I.
Medizinische Universitätsklinik der Charitè,

In old men there is a significant augmentation
of the degree of segmentation of the neutrophil
leukocytes. This is not due to a deficiency in
vitamin B12. Seven persons aged between 67
and 95 years received each a single dose (3000 µg.)
of vitamin B12. Within 3–14 days there was a
significant decrease of the number of segments
in their leukocytes and an increase in the number
of band forms. But within 10–16 days, there was
again an increase in the number of segments. It
thus appears that the increase of polyysegmented
leukocytes is part of the aging process.—H. M.

Cytomegalic Inclusion Disease in Children
with Leukemia or Lymphosarcoma. A. W.
Gottmann and E. C. Beatty, Jr. From the Chil-
dren’s Hospital, Denver, Colo. Am. J. Dis.

Three children with acute leukemia and one
child with lymphosarcoma demonstrated evidence
of salivary gland virus infection at autopsy. Cyto-
meagalic inclusions were found in the lungs, ad-
renal and thyroid glands in three children in whom
CID was considered an incidental finding. In the
fourth child, a 7-year-old with acute leukemia,
death occurred during partial remission; at post-
mortem, inclusion bodies were found in the lungs, liver, spleen, and adrenals. The CID
pneumonia was extensive, and was considered to
have been the cause of death.—J. B. S.

Studies on the Origin of Myeloma Proteins.
C. Jaffiol and M. Robinet. From the Centre
Regional de Transfusion Sanguine, Faculté de
Médecine, Montpellier, France. Path. et Biol.

Based on immunoelectrophoretic study of mye-
loma cells and of supernatant culture medium of
live plasmocytes, it appears that the myelomatous
proteins originate in plasmocytes. Bence Jones
protein is similarly produced, and should be
considered simply as a special variety of para-
protein.—G. M.

Abnormal Serum Proteins in Multiple
Myeloma. Immunochcmical Study by Means
of Specific Immune Sera. P. Cazal, J. Mirouze,
P. Izarn, M. Robinet, Cl. Jaffiol, J. Macabies
and R. Bouvier. From the Clinique St-Eloi,
Montpellier, France. Path. et Biol. 10:951–
959, 1962.

By immunoelectrophoresis it is possible to dif-
fentiate between four groups of myelomatous
paraproteins. In the first group there are γ-anti-
genic similarities. In the second the β2-A com-
ponents are related. In the third there is a mixed
structure, specific rabbit immunosera revealing a
double appurtenance: both β2-A and γ. In the
fourth group there is no apparent abnormality of
the β2-A and γ globulins. However, here also the
use of specific immunosera may reveal anomalies
undetected by the classical technic. Finally, the
myelomatous globulins may be linked to two
antigenic radicals, γ and β2-A, which constitute a
similar immunologic system responsible for
elaborating the antibodies.—G. M.

Urinary Proteins in Multiple Myeloma: An
Immunologic Study, by Means of Specific
Immune Sera. P. Cazal, J. Mirouze, J. Maca-
bies, Mme M. Robinet, Cl. Jaffiol and R. Bou-
vier. From the Clinique St-Eloi, Montpellier

The urines of 32 myeloma patients showed
abnormalities by immunoelectrophoretic analysis
in 25 instances. There was no correlation between
abnormal peaks on paper electrophoresis, and the
intensity of the precipitation arc obtained by the
immunologic method which sometimes appeared
only with the help of specific immunosera. In
addition to the paraprotein, there were other
nonspecific urinary globulins which seem to be
especially abundant in patients with renal disease.
Comparison between serum and urine by standard
ABSTRACTS

Immunoelectrophoresis differentiates between four groups of myeloma: Those with combined dysproteinemia and proteinuria; those presenting only one of those anomalies; those with neither abnormality. However, the latter is valid only after study by specific immune sera.—G. M.


It is known that there are two immunologically defined types of Bence Jones protein (Korngold and Lipari; Cancer 9:262, 1956). An electrophoretically homogeneous $\gamma_1$-A-globulin gave two distinct precipitin lines by agar diffusion with an antiserum to $7S$-$\gamma$-globulin. These two zones could be identified with one or the other immunologic type of Bence Jones protein. Myeloma proteins generally gave only one line on agar diffusion and these could also be identified with one or other of these two immunologic types of $\gamma_1$-A-globulin.—I. C.


The results of an immunologic study on 9 sera of primary macroglobulinemia and of two isolated macroglobulins are reported. Complete adsorption of two horse anti-human sera (No. 1299 and 365) by these 11 sera or macroglobulins induced the absorption of all the antibodies capable of reacting with normal $\beta_2$-M-globulin. Ten rabbit immunoseria were prepared against five of these macroglobulins. After exhaustion by normal $\beta_2$-M-globulin (normal human serum of cirrhotic serum), four of them retained antibodies against homologous macroglobulins. Therefore, at least in some cases, there is an individual specificity of these pathologic macromolecules.—G. M.


Mast cell reticulosis symptoms include those of urticaria pigmentosa and of spongiosclerosis. However, urticaria pigmentosa may be present without spongiosclerosis. The radiologic bone abnormality is described. Since spongiosclerosis is found not only in mast-cell reticulosis, but also in osteomyelosclerosis, and since in both instances the sclerosis follows fibrosis of the bone marrow, it is not yet certain that fibrosis and sclerosis of the bone marrow result from mast-cell heparin activity. The etiology of both—mast cell reticulosis and osteomyelosclerosis—remains obscure, but they are both neoplastic reticuloses.—H. M.

ERYTHROCYTES


Hokin and Hokin have proposed an attractive scheme for active transport of intracellular sodium on the basis of their experiments with the salt gland of the albatross. On the other hand, ATPase has been postulated by several authors as a cation carrier in cells. It would be of interest to examine the nature of the carrier on erythrocytes, a favorite model for studies on ion transport. In the following experiment, phosphatidic acid turnover and ATPase activity of the red cell membrane was investigated under conditions in which active transportation of sodium and potassium ions was disturbed by ouabain. The results are summarized as follows: 1) Repletion of potassium by cold-preincubated red cells was suppressed by $3 \times 10^{-8}$ to $3 \times 10^{-6}$ M ouabain, whereas turnover of the red cell membrane phosphate moiety of phospholipids, especially of phosphatidic acid, was not inhibited by ouabain. 2) Erythrocyte ATPase was inhibited by ouabain in the same range of concentration. 3) ATP added to the plasma inhibited potassium transport from the plasma into the red cells. 4) Based on these results, ATPase was suggested as playing a role in cation transport by red cells.—K. F.


Using reverse phase partition chromatography of bilirubin pigments 1 and II, 53 samples from

Serial samples of bile from a human and dog were examined for a sulfate conjugate of bilirubin by $^{35}S_O_2$ tracer studies and the diazotized benzidine colorimetric method. Diazotized sulfanilic acid derivatives of bilirubin could be freed completely of $^{35}S_O_2$ actively by two-dimensional paper chromatography. The authors conclude that the identification of an alkali-stable, direct-reacting fraction of conjugated bilirubin with a non-glucuronide, water-soluble conjugate of bilirubin is not yet justified. The authors examined in detail the bilirubin sulfate previously described. The polar, direct diazo-reacting compound has been characterized as a bilirubin sulfonate on the basis of its behavior in various reactions, and the most likely site of conjugation is at the pyrrol nitrogen.—G. W. J., III.


Unknown specimens containing varying concentrations of bilirubin were tested in the laboratories of 13 teaching hospitals, and the results obtained were compared. Specimens were run in triplicate at precise intervals from 30 minutes to 24 hours after the lyophilized specimen was reconstituted. In all but one laboratory the diazo method was employed. A total of 953 determinations was reported. Although the mean values obtained by pooling the results from all the laboratories were very close to the expected values of the specimens which had been distributed, there was a fairly wide scatter, varying by as much as $\pm$ 3.6 mg./100 ml. from the true values. This wide range of error was thought to be a reflection of incorrect bilirubin standardization.—J. B. S.


A marked difference in the incidence and degree of hyperbilirubinemia among premature infants in two hospitals is reported. This discrepancy could not be related to any clinical differences in the prenatal care of mothers or infants, but was related to dissimilarities in the laboratory estimation of serum bilirubin levels. In particular, the method of preparation of the bilirubin standard and the standard curve differed significantly. Other possible sources of laboratory error in the use of the Malloy-Evelyn bilirubin measurement method are discussed.—J. B. S.


Employing the fluorescein isothiocyanate conjugated globulins of hyperimmune serum obtained from a person with Bombay type blood, the H antigen was mapped in human tissues of adults and of fetuses. The distribution of H, with modification in nonsecretors, followed the same pattern characteristic for A and B. Less H was encountered in the tissues of non-O persons.—R. E. R.


A serologic analysis of the antiglobulin test, with 17 illustrative tables. The concept of three
ABSTRACTS

major serologic specificities, γ2, γ1 and C', is probably an oversimplification of antiglobulin reactions, but is a reasonable introduction for many students.—R. E. R.

INFLUENCE OF PLASMA ON TRANSFERRIN UTILIZATION IN VITRO. II. PHYSIOPATHOLOGIC STUDIES.

Red cell penetration of radioactive iron from different human plasmas has been studied. The speed varied with different plasma. A direct correlation was found between plasma iron concentration and incorporation into red cells.—G. M.


Methionine synthesis from homocysteine by certain Escherichia coli extracts involves the transfer of a methyl group and requires vitamin B12. The methyl group has now been shown to be linked to the Co atom in the B12 molecule and transferred directly to homocysteine. In the over-all reaction, the methyl group was derived from serine and transferred to the demethylated cobalamin derivative via N-methyltetrahydrofolate.—I. C.


The DNA content of the buccal cell nuclei in four patients with untreated pernicious anemia and one patient with megaloblastic anemia in the puerperium, as tested by the Feulgen staining procedure, was found to be within normal limits. —I. C.


In a survey of 93 cases of postcricoid carcinoma, 29 of the patients had iron-deficiency anemia and five were being treated for pernicious anemia. Details of three of these latter five patients are described. They are all women who presented with a megaloblastic anemia which responded to treatment with either B12 or liver extract. All had dysphagia.—I. C.


Uremic anemia parallels the increase of creatinin. On an average a retention of 1.5 mg. per cent of creatinine is followed by a reduction of 25 per cent of the erythrocyte volume; 12 mg. per cent of creatinine retention leads to a 50 per cent reduction of erythrocyte volume. In 150 cases of glomerulonephritis, an anemia of 11 Gm. per cent was found at an average of 5.5 mg. per cent of creatinine concentration; in 57 cases of pyelonephritis, an equal anemia was found at a creatinine concentration of 7.3 mg. per cent. This may be due to a disorder in iron metabolism: in pyelonephritis the average iron concentration was 72 μg. per cent, in glomerulonephritis 93 μg. per cent. Anemia was also related to the retention of phenol. In 100 studied cases the number of erythroblasts in the bone marrow was usually increased, even if uremia was severe. However, the increase of erythroblasts may not be correlated with the retention of various substances including creatinine. The anemia of uremia is due to a shortened life span of the erythrocytes by environmental factors, as well as to the production of defective erythrocytes.—H. M.

URINARY INFECTION AND ANAEMIA IN PREGNANCY.

Urinary infection was more than twice as common in anemic pregnant patients as in controls. In 30 of 56 cases both the infection and the anemia responded to treatment with antibacterial drugs. Most of these patients had been receiving routine prophylactic iron and folic acid.—I. C.


Twenty-two cases of acquired aplastic anemia were seen in 8½ years. All had marrow examinations. Twelve of 16 fatal cases had autopsies. Ages ranged from seven months to 12.5 years and only
six patients were male. In 16 the disease was considered to be caused by chloramphenicol, the doses except in two being small to moderate (1.3-8 gm.). In five others the cause was either infection or other chemicals, and in one no cause was found. Many of the children had always been frail; one-third suffered from allergy, and in half the families one or more members were subject to allergies. Constitutional factors such as allergy and liability to repeated infections thus appear to play a part in the etiology of aplastic anemia in children, especially girls. Only six children survived, one with residual symptoms due to pancytopenia. Apart from supportive therapy, steroids appeared of value when given in the first 4 to 6 weeks. Androgens and/or splenectomy were used in eight cases, in four with apparently beneficial results. The author again stresses the potential hazards of chloramphenicol therapy and unfavorable results. The author again stresses the potential hazards of chloramphenicol therapy and unfavorable results.

--- F. W. G.


Four patients with hereditary non-spherocytic hemolytic anemia are reported. Two cases were classified as Dacie's type I. Glucose-6-phosphate dehydrogenase was absent in the red cells. The red cell oxygen uptake on stimulation with methylene blue was reduced and the capacity to reduce disulfide cysteamine was decreased. The remaining two cases were categorized as Dacie's type II. In these red cells glycolysis was normal, as was their content of AMP, ADP and ATP.

--- S. A. K.


Surface scanning and red cell survival studies after Cr51 labeling were done in 26 patients who later underwent splenectomy. The splenic sequestration index is defined as the difference between the spleen-precordial ratio at the red cell half-survival time and this ratio at zero time, multiplied by 100. In eight normal individuals the splenic index ranged from -2 to +75, and the analogous liver sequestration index from -6 to +29. Twenty-three of 26 splenectomized patients survived the operation. The splenic index, combined with the apparent half-survival time of autologous red cells, correctly predicted the effect of the operation in 19 patients. The reasons for incorrect predictions are discussed. In some cases the splenic index was high although the half-time of the red cells was normal, which indicates the necessity of determining both parameters when splenectomy is considered.---S. A. K.

ABSTRACTS


Whereas normal red cells readily adsorb penicillin and hence become agglutinable by antisera containing the appropriate antibody, this phenomenon could not be demonstrated when red cells from a patient with PNH were used. This was shown to be due to a failure of these cells to adsorb penicillin although other happens such as the Vi antigen were readily taken up.---I. C.


Hemoglobin H migrates electrophoretically as a single fast-moving component at an ionic strength of 0.1 at pH 7.5, but as two components when the ionic strength of the buffer was decreased. The two components could be eluted and made to move as a single component when the ionic strength of the buffer was again increased. Similarly, one component appeared when the pH was less than 7 and two components at a pH greater than 7. The two components were found to be identical in primary structure and it was concluded that they represented two isomeric forms.---I. C.


An electrophoretically 'rapid' abnormal hemo-
hemoglobin component was found in cord blood which had a more rapid mobility than hemoglobin Bart's. The father was found to have hemoglobin I. Five months later the rapid component was still present in the infant’s blood in the same amount but its mobility was now the same as hemoglobin I, the percentage of alkali resistant hemoglobin having declined from 70 to 12. The change from fetal to adult hemoglobin is presumably the result of a switchover in synthesis from γ- to β-chains. The decline from 70 to 12. The change from fetal to (THALASSEMIA MAJOR (MEDITERRANEAN OR COOLEY'S ANEMIA). REPORT OF TWO CASES IN NEGRO CHILDREN. R. B. Scott, A. D. Ferguson and M. E. Jenkins. From the Freedmen's Hospital, Washington, D. C. Am. J. Dis. Child. 104:74–81, 1962.

Two cases of thalassemia in Negro children are described. Both youngsters had hypochromic microcytosis with moderate reticulocytosis and normal hemoglobin electrophoretic patterns. Hemoglobin A2 was increased in the three parents available for study. Physical examination and radiographic bone studies were typical of thalassemia. One patient required transfusions at regular intervals until splenectomy was performed at age 4. The other youngster has not required transfusion.—J. B. S.

HEMOSTASIS


In fractionating fresh human plasma, the anti-hemophilic factor (AHF) is carried down with fibrinogen. Di-isopropyl phospho-fluoridate (DFP) was found to considerably enhance the stability of AHF in these concentrates. The instability of AHF appears to be due to factors which are removed by the action of DFP.—I. C.


In a group of patients with atherosclerotic coronary disease, the average antihemophilic factor A level was higher than in normal controls. The values were not correlated with the age of the patients. The average fibrinogen level was also higher in the patient group than in controls whereas the antihemophilic factor C activity was almost the same in both groups. These factors were not influenced by anticoagulant treatment.—C. W.


In the blood of patients with paroxysmal nocturnal hemoglobinuria and congenital spherocytosis, a tendency to short cephalin times and high levels of antihemophilic factor A and fibrinogen were observed. After intravenous injection of 30 cc. of hemolyzed, citrated, autologous blood into healthy people, the same changes were noted as well as increased proaccelerin activity.—C. W.


A titration method was tested using human fibrinogen, human plasminogen, thrombin and urokinase. The inhibitory activity of a serum tested was expressed in per cent of that of a sample of pooled normal sera. The normal range was 60–150 per cent and the standard deviation 19 per cent. If streptokinase was used instead of urokinase, the normal range was wider and the results were influenced by the antistreptolysin titer. Hence, urokinase is preferred.—C. W.


Platelets have a high content of adenosine triphosphate (ATP). Platelet aggregation has been shown to be brought about by adenosine diphosphate (ADP). It is suggested that ADP arises from ATP in platelets in the initial stages of thrombosis. Further breakdown to adenosine monophosphate (AMP) reverses this effect and causes dispersion of platelets.—I. C.

Seventy-three cases of idiopathic thrombocytopenic purpura were given hormone therapy or subjected to splenectomy. Forty patients had hormonal treatment only, 19 only splenectomy and 12 both: first hormonal and subsequent splenectomy. Two patients had a spontaneous remission without treatment. The treated patients had one or several drugs. The 52 patients (40 plus 12) given hormonal treatment had a total of 155 therapeutical courses. The hormones employed were adrenalin, ACTH and several corticosteroids (cortisone, prednisone, prednisolone, methylprednisolone, triamcinolone and dexamethasone). All were followed for at least 1 year and up to 8 years. The average period of observation was between 2 and 3 years. Ten additional cases were observed for less than a year. Four types of results were encountered: 1) Patients without any response; 2) patients with clinical improvement only, but without hematologic response; 3) cases with clinical and hematologic responses and with relapses; 4) cases with clinical and hematologic responses, without relapse. Such cases were considered as "cured." According to these criteria, 32 cases out of the 73 were considered "cured," 15 with the hormonal treatment and 17 with splenectomy. The 15 cases with complete hematologic and clinical remissions responded to the several agents as follows: two cases with ACTH; two with cortisone; ten with prednisone; one with dexamethasone. With prednisolone, methylprednisolone and triamcinolone, no "cure" was obtained.—M. J.


Mild intestinal bleeding associated with thrombocytopenia is described, as it appeared in one premature nursery. The infants were apparently well, and no other hemorrhagic manifestations were seen. In many infants, thrombocytopenia was not accompanied by bloody stools, and in a few, evidence of intestinal bleeding was seen in the presence of normal platelet counts. The authors believe that some environmental factor, chemical or infectious, may be operative in the pathogenesis of this syndrome, which affected more than 10 per cent of the infants cared for in this nursery over a 3-year period.—J. B. S.