aplastic anemia in man can also induce leukemia. Prime examples are benzene [1,2] and irradiation.[3,4] In addition, cases of leukmia developing during the course of hereditary hypoplastic syndromes have been recorded.[5,6] The broad-spectrum antibiotic chloramphenicol [7-9] has become the most commonly cited cause of acquired aplastic anemia. To date, only 1 case report of acute myeloblastic leukemia following aplasia secondary to chloramphenicol administration has been published.[10] The purpose of this communication is to present 2 additional cases of chloramphenicol-induced aplastic anemia of long standing that developed into acute myeloblastic leukemia. In addition, a patient in whom an indolent, pancytopenic myeloblastic leukemia followed the prolonged use of chloramphenicol for the treatment and prevention of head colds is reported.

CASE REPORTS

CASE 1. J.D. (N.E.M.C.H. 178–415), a 38-year-old woman, was initially investigated 8 years before admission when, after a 6-week course of chloramphenicol (total dose, 84 gm), marked pallor developed. The pretreatment hemoglobin level was 12 gm per 100 ml, and the white-cell count 8000. Shortly after chloremphenicol therapy the hemoglobin was 7.2 gm per 100 ml, the white-cell count 2200, and the platelet count 100,000. Peripheral blood examination showed a predominance of mature lymphocytes (69 per cent) with no primitive white-cell forms. In addition there was mild red-cell anisocytosis. Aspiration of the bone marrow produced a fatty hypocellular sample with small spicules. The myeloid-erythroid ratio was increased, primarily owing to severe red-cell hypoplasia. Granulocytic precursors and megakaryocytes were also decreased in number. No vacuolization of bone-marrow elements nor increase in immature forms was apparent. Lymphocytes and reticular elements were relatively increased. A diagnosis of chloramphenicol-induced hypoplastic anemia was made, but no specific therapy was initiated.

Splenectomy was performed in 1959 because of worsening pancytopenia and bleeding. The spleen was of normal size and showed no abnormal features. Bone-marrow aspiration was not repeated. After splenectomy there was no marked change in the peripheral blood picture. The hemoglobin values ranged between 6 and 8 gm per 100 ml, and the white-cell counts around 2500. Treatment consisted of adrenocorticosteroids, androgens and occasional blood transfusion until 1963, when the patient gave birth to a normal male child. Thereafter, transfusion requirements rose sharply. This was attributed primarily to decreased red-cell production. Thirty-eight units of whole blood were given from March, 1965, until 1966. A hemogram performed in April, 1966, revealed a hemoglobin of 7.0 gm per 100 ml, a white-cell count of 15,000 and a platelet count of 50,000. The differential count showed a predominance of immature blast forms, some of which contained Auer rods.

On clinical examination in May, 1966, the patient was extremely pale and incoherent, with marked purpura. There was evidence of congestive heart failure and a severe neurologic deficit related to brain hemorrhage. The peripheral white-cell count was 37,900, with 15 per cent myeloblasts. Aspiration of the bone marrow produced a specimen almost totally replaced by myeloblasts. Shortly after admission the patient died. Permission for post-mortem examination was not granted.

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