: : CASE REPORT : :

ACUTE LEUKEMIA—A CASE REPORT

by
HENRY J. PRESUTTI, B.Sc., '56

Although cases of acute leukemia are not rare, this case is being presented because it shows two features which can be classed as rarities.

B.M.O.—15 month old white female.
Admitted to H.C.H.—Jan. 12, 1955.

Complaints—

1. Loss of appetite since Jan. 1, 1955.
2. Restless while sleeping since Jan. 1, 1955.

History of Present Illness—

Parents considered the patient as being well until January 1, 1955, when it developed the above complaints. They attributed these complaints to "teething" but after one week they notified their family physician who visited the patient. A slight upper respiratory infection was found which could account for the complaints. Another visit several days later showed enlargement of cervical, axillary and inguinal lymph nodes. Patient admitted to hospital several days later.

Past history and functional inquiry were non-contributory.

Physical Examination—

Positive findings. This showed a pale, unhappy, well-developed, well-nourished child with a temperature of 99.8 degrees. The gums were bleeding and the throat appeared injected. Small, shotty lymph nodes palpable in the cervical, axillary, and inguinal areas. The spleen was palpable and firm. The liver was palpable about one finger breadth below the right costal margin. Several bruises were present over the trunk and legs.

Investigation—

Urinalysis—Two plus albumin.
1 - 4 WBC/hfp.

Blood picture—Hemoglobin, 5.85 gm. (41%).
WBC count, 281,500.
Differential, 43% lymphoblasts
5% promyelocytes.

RBC—marked hypochromia and poikilocytosis.
Moderate anisocytosis.
Occasional polychromasia.
Numerous nucleated RBC.

Platelets—scanty.

Impression—Lymphomatous disease.

Course and Therapy—

The patient was given a blood transfusion of 200 cc. packed cells on the day of admission and was repeated the following day. This raised the hemoglobin level to 9.60 gm. (68%). During the following two days the hemoglobin dropped to 50% and a third transfusion was given on January 16, 1955. This did not appear to improve the patient's condition. Except for the first three days after admission, the patient refused all food.

On January 19, 1955—seven days after admission—the patient had Cheyne-Stokes breathing. The temperature rose steadily throughout the day to 108 degrees and the patient expired in the evening.

Autopsy—

The gross findings were typical of leukemia. The liver and spleen were enlarged to twice the normal size and weight. The cut surfaces showed the typical leukemic infiltration. The mesenteric lymph nodes were greatly enlarged and formed great irregular masses in the abdomen. The microscopic findings were those of acute lymphatic leukemia.

Discussion—The two features of this case which stand out are:

1. The acuteness of the case — there were only 19 days between the onset of complaints and the date of autopsy. The original complaints could have been indicative of almost any disease. The course of acute leukemia, even without treatment, is said to be between six and nine months. However, a small number, probably 5% will terminate in one month. This case belongs to this later group.

2. The marked leukocytosis. In about 65% of cases of acute leukemia there is a leukopenia during the initial stages which may be followed by a moderate leukocytosis which rarely exceeds 100,000. However, here is a case with a leucocyte count of 281,500 which is much closer to the figure found in chronic leukemia.

Although the treatment for acute leukemia is unsatisfactory at the present time, one must always be on the look-out for the great variation possible in this condition, an example of which is given above.

I wish to express appreciation to Dr. A. M. Marshall for permission to publish the above case.

LIST OF ADVERTISERS