ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients[1] who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients,[2] Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

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PROGNOSTIC VALUE OF IMMUNOLOGIC MARKERS IN ADULTS WITH ACUTE LYMPHOBLASTIC LEUKEMIA

To the Editor: The letter from Dr. Bitran[1] has raised an important but as yet unsettled question about prognostic factors in acute lymphoblastic leukemia in adults. On the basis of experience with 13 patients, Dr. Bitran suggested that adults with T-cell disease could have a limited survival and a lower rate of remission than those with B-cell disease. From January, 1974, to June, 1979, we studied 42 consecutive adults (more than 12 years old) with acute lymphoblastic leukemia for sheep-erythrocyte rosette formation and surface immunoglobulins. Patients were classified as having T-cell disease if they had more than 40 per cent of marrow blast cells forming E-rosettes, or B-cell disease if they were positive for surface immunoglobulins. Details on the techniques have been reported elsewhere.[2] There were 31 patients with null-cell leukemia, eight with T-cell leukemia, and four with B-cell leukemia. All patients were treated with vincristine (1.6 mg per square meter of body-surface area each week in five to six doses), daunorubicin (40 mg per square meter in two to three doses), and prednisone (40 mg per square meter daily for four to six weeks). Patients presenting with a blast-cell count higher than 25,000 per microliter or a large tumor mass, or both, also received a single starting dose of cyclophosphamide (1.5 g per square meter), and an eight-day course of L-asparaginase 17,000 U per square meter daily). Patients who had complete remissions (except for three over 60 years of age) received central-nervous-system therapy (2400 rads to the skull, with five intrathecal injections of methotrexate or arabinosyl cytosine, or both). During complete remission, they were given 6-mercaptopurine (70 mg per square meter daily), methotrexate (25 mg per square meter each week), and courses of vincristine and prednisone every three to four months.

Table 1. Remission and Survival in Adults with Acute Lymphoblastic Leukemia.

CHARACTERISTIC	TYPE OF DISEASE		
	NULL-CELL	T-CELL	B-CELL
No. of cases	31	8	4
Patients with complete remissions (no.)	25/31 (81)*	7/8 (87)	1/4 (25)
Patients still in 1st complete remission (no.)	11/25 (44)	4/7 (57)	0/1
Patients still alive (no.)	18/31 (58)	5/8 (62)	0/4
Median length of complete remission (mo)	15	Not yet reached	—
Median survival (mo)	26	Not yet reached	—

*Figures in parentheses denote percentages.

Results are shown in Table 1. They do not support the suggestion by Dr. Bitran that in adults with acute lymphoblastic anemia, T-cell leukemia has a poorer prognosis than B-cell disease. However, because of the limited number of cases and the short follow-up, the present data are far from definitive. More information on this point is needed. The identification of prognostic factors in acute lymphoblastic anemia in adults is critical, not only for the choice of induction therapy but also because young adults with an established poor prognosis could profit from allogeneic-marrow transplantation during the first remission. Therefore, we suggest that for the time being it may be wiser to base prognosis on more established criteria, such as age and blast-cell count in the blood.[2]

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DECREASED KETOGENESIS DUE TO DEFICIENCY OF HEPATIC CARNITINE ACYL TRANSFERASE

To the Editor: In 1970 Engel reported in the *Journal* a disorder of the skeletal muscle without fasting hyperketonemia and with a normal increase in ketone bodies after oral medium-chain triglycerides.[1] He suggested a possible defect in the use of long-chain fatty acids. Usually, fasting is associated with hyperketonemia except in hyperinsulinemic states. Hyperketonemia results from the release of long-chain fatty acids from adipose tissue and their intrahepatic channeling toward mitochondrial oxidation and ketogenesis. The transfer of long-chain fatty acids to the mitochondria for oxidation and ketone-body formation is controlled by acyl carnitine transferase, whereas medium and short-chain fatty acids do not need acyl carnitine transferase to enter the mitochondria.[2]

We report a case of hypoglycemia without hyperketonemia due to a liver deficiency of acyl carnitine transferase. The clinical history of this infant started when she was eight months of age, with morning seizures due to hypoglycemia (blood glucose, 1 mmol per liter). At nine months her height, weight, and mental development were normal. Her liver was enlarged (4 cm under the costal margin). No muscular symptoms were noticed. Her older sister had died at 14 months with hypoglycemic coma and hepatomegaly.

Blood glucose, ketone bodies (acetoacetate and 3-hydroxybutyrate), plasma nonesterified fatty acids, insulin, glucagon, growth hormone, and cortisol were assayed with standard methods during fasting. After 20 hours of fasting, the blood glucose was 2.5 mmol per liter. Surprisingly, there was no rise in total concentration of ketone bodies (<0.01 mmol per liter) despite a normal increase in nonesterified fatty acids (3 mmol per liter). Glucagon, cortisol, and growth hormone increased, and insulin decreased (less than 5 μU per milliliter) as in normal controls.

The similarity of the mobilization of nonesterified fatty acids during fasting to that occurring in normal controls suggested that the metabolic defect was located at the level of hepatic fatty acid oxidation or ketogenesis. Oral medium-chain triglycerides produced a dramatic increase in blood ketone bodies (2.5 mmol per liter), which ruled out a defect in β-oxidation or ketogenesis and suggested a deficiency or an inhibition of acyl carnitine transferase. Liver biopsy was performed. Histologic examination of hepatocytes re-