To the Editor:

The increasing number of long-term disease-free survivors of acute nonlymphocytic leukemia (ANL) treated either by chemotherapy or by chemoradiotherapy and marrow transplantation has led to some controversy about the treatment of choice and has increased the need for follow-up information of 5-yr duration and beyond. For example, 6 of 54 (11%) patients with ANL transplanted in end-stage relapse are in remission 6-10 yr later. The report by Rai et al. is laudable in that it reports a large number of patients followed for a long time. The study was closed May 7, 1975 and reported March 2, 1981, a minimum follow-up of 58 mo. Table 6 of Rai et al. was analyzed as of October 1980, a minimum follow-up time of 54 mo. Table 6 lists three patients as being in remission after 48 mo. Why is their follow-up time less than 54 mo?

On page 1210 the statement is made, “Only one relapse has occurred after 60 mo, with 18 patients at risk.” Yet, a study of Table 6 discloses 2 patients who relapsed at 67 mo and a total of 24 patients in remission after 48, 51, and 52 months. Why is their follow-up time less than 54 mo?

In discussing the prolonged remission duration in patients receiving subcutaneous bolus Ara-C, the authors quote Finkenstein et al. and state that Ara-C is slowly absorbed from the subcutaneous tissues and remains at a plateau for 6 hr. The study quoted used tritiated Ara-C, and the level of radioactivity was not sufficient to permit separation of Ara-C from the inactive metabolite Ara-U. Over 90% of the measured radioactivity represents Ara-U, and the kinetics described are therefore more representative of the elimination of Ara-U rather than Ara-C.

Recent data using a sensitive and specific radioimmunoassay has shown that subcutaneous bolus Ara-C is rapidly absorbed and then declines with a half-life similar to that of intravenous bolus Ara-C. The plasma Ara-C concentrations following a subcutaneous bolus were higher than those following an intravenous bolus only during the first few hours, and after 5 hr were only 10% of steady-state infusion levels.

In view of the data presented by Rai et al., it would seem important that subcutaneous bolus Ara-C is not regarded as a kinetically equivalent alternative to intravenous infusion of Ara-C.

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REFERENCES


To the Editor:

We have read with interest the article entitled “Treatment of Acute Myelocytic Leukaemia” by Rai et al. This paper makes a valuable contribution to the debate about the schedule of administration of cytosine arabinoside (Ara-C).

In discussing the prolonged remission duration in patients receiving subcutaneous bolus Ara-C, the authors quote Finkenstein et al. and state that Ara-C is slowly absorbed from the subcutaneous tissues and remains at a plateau for 6 hr. The study quoted used tritiated Ara-C, and the level of radioactivity was not sufficient to permit separation of Ara-C from the inactive metabolite Ara-U. Over 90% of the measured radioactivity represents Ara-U, and the kinetics described are therefore more representative of the elimination of Ara-U rather than Ara-C.

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