impact on prognosis in chronic lymphocytic leukemia. Our data point to the contrary.

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REFERENCES

FICOLL-HYPAQUE SEPARATION OF BONE MARROW CELLS

To the Editor:

Levitt et al. and Greenberg et al. have recently described elegant immunologic methodologies for selectively isolating T lymphocytes or hematopoietic progenitor cells from small aliquots of human marrow. In both cases the initial marrow manipulation, following aspiration, involved selective isolation of light-density mononuclear cells using Ficoll-Hypaque (1.077 ± 0.003 g/dL) gradients. Potentially, as these authors indicate, these methodologies might have applicability for improved bone marrow processing in the context of clinical autologous or allogeneic bone marrow transplantation.

We are writing to describe our experience with Ficoll-Hypaque separation of bone marrow cells in the context of autologous bone marrow transplantation and to suggest that this methodology may be associated with variable, and potentially unacceptable, losses of hematopoietic progenitor cells in the context of the large-volume bone marrow harvesting required for bone marrow transplantation.

Forty-seven bone marrow samples were harvested in the operating room using standard precautions and techniques. Following elimination of excess plasma, media, and red cells as previously described, 13 bone marrows were further fractionated by Ficoll-Hypaque separation. Mean (± SEM) cell and CFU-GM yield recovered after Ficoll-Hypaque separation were respectively 3.71 x 107 (±0.47 x 107) cells per kilogram and 1.42 x 107 (±0.19 x 107) CFU-GM per kilogram. Mean CFU-GM loss appeared to be minimal since mean CFU-GM recovery was 81% (±14%), but was deceiving since in three cases CFU-GM recovery was in excess of 100% and in three other cases it was less than 35%. In the latter three cases hematopoietic recovery was significantly delayed. In contrast, mean CFU-GM yield per kilogram following generation of "buffy coat concentrate" of marrow cells on 24 subsequent marrow collections was 2.32 x 107 (±0.36 x 107) or about 1.6-fold higher than that observed after Ficoll-Hypaque separation.

REFERENCES


Ficoll-Hypaque separation of bone marrow cells [letter]

RA Abrams, P Buck and L Polacek