TRANSPANTATION FOR ACUTE LEUKEMIA IN SMALL VERSUS LARGE CENTERS

To the Editor:

Being that my consociate was a recipient of HLA-identical sibling bone marrow transplant, we found the report entitled “Should HLA-Identical Sibling Bone Marrow Transplants for Leukemia Be Restricted to Large Centers?” to be of great interest to us. We believe the study does raise important questions in reference as to whether the volume of complex surgical procedures performed in a hospital correlates with better procedure outcome, and the results could have an important impact on health care policy.

We believe the hypothesis has favorable results in this study. The data appear to support the premise that the volume of bone marrow transplants is inversely proportional to the mortality rate for a given institution. We were also impressed by the self-examination the study put itself through, in that it questioned its own results, based on the varying regiments, and training of the physician and nursing staff.

However, we believe that in the process of questioning this study the investigators did not raise enough of the other possibilities that could have affected the study. Examples of other issues and other criteria that could have been studied would include the support staff and services the hospital had to offer both the patient and patient’s family. Studies have shown the effect of morale and mortality. Larger institutions whose main or sole mission is performing bone marrow transplants are more likely to have such services geared specifically for the bone marrow recipient and family, and therefore could have affected the study.

Furthermore, we question the results of the study. While the study notes the patients used had “early leukemia in first remission or chronic myelogenous leukemia in first chronic phase,” it neglected to mention the likelihood of the smaller centers’ probable rejection of patients who are about to enter blast crisis, which would make the procedure increasingly more difficult. The study also did not mention if the larger institutions accepted patients with any other complicating factors, ie, pneumonia, etc, that would affect the numbers generated in this study.

In closing, we feel that the investigators did an exceptional job in conducting the study and presenting the results to their readers. We feel that the aim of the study, to determine whether or not center size affects transplant outcome, is important to health care policy. Therefore, we would like to encourage the investigators to do a more in-depth study that would cover these unanswered questions.

JOSEPH T. GUSTAFSON
HARRY CASS
Cleveland Chiropractic College
Kansas City, MO

RESPONSE

We thank Mr Gustafson and Mr Cass for their comments on our manuscript (Horowitz MM, Przepiorka D, Champlin RE, Gale RP, Gratwohl A, Herzig RH, Prentice HG, Rimm AA, Ringden O, Bortin MM: Should HLA-identical sibling bone marrow transplants for leukemia be restricted to large centers? Blood 10:2771, 1992). They raise the question of whether the results of our study might be influenced by differences in patient selection between small and large centers, specifically whether larger centers might be more likely to treat more “difficult” patients. The International Bone Marrow Transplant Registry collects detailed information regarding pretransplant patient and disease characteristics and we used this information in our study to control for potentially confounding effects of patient selection. As stated in our report, patients receiving transplants for early leukemia in small centers were similar to those in large centers. Patients in large centers were no more likely to have features like older age, infection or organ dysfunction pretransplant, or long disease duration that might suggest a higher risk of posttransplant complications. Patients transplanted for more advanced leukemia or other indications were not included in this study and we did not address the question of whether they are more or less likely to receive transplants at small versus large centers.

Mr Gustafson and Mr Cass also question whether aspects of large institutions other than number of procedures performed might influence transplant outcome. We, unfortunately, did not have access to detailed information regarding institutional characteristics like support services, nurse/patient ratios, and physician training to determine their impact. It is possible that these and other variables differ between small and large transplant centers.

We agree that careful study of these and other institutional characteristics might provide information important for developing health care policy related to delivery of sophisticated medical care.

MARY M. HOROWITZ
MORTIMER M. BORTIN
International Bone Marrow Transplant Registry
Milwaukee, WI
Transplantation for acute leukemia in small versus large centers
[letter; comment]

JT Gustafson and H Cass