Chemotherapy versus allogeneic transplantation in adult patients with acute lymphoblastic leukemia in first remission: not a time for dogma

Isakoff and colleagues highlight in their letter that young adults with acute lymphoblastic leukemia (ALL) treated with a pediatric-inspired regimen do not need a bone marrow transplant in first remission. Their assumption is based on comparisons of published outcomes of young patients with ALL treated with adult and pediatric-inspired regimens mainly in the age group of 15 to 20 years. Although the outcomes of pediatric-inspired regimens in young adults 15 to 20 years old with ALL are encouraging, several factors should be taken into consideration before any valid conclusions can be drawn.

In our report, a young adult is defined as <35 years old.1 It is highly speculative that the findings of patients treated in the age group of 15 to 20 years can be generalized to those >20 years old.

The best chemotherapy regimen for young adults with ALL is unknown. A pediatric-inspired regimen may be better than a standard adult regimen, but comparison of these regimens has never been prospectively studied. One has to question the real causes of differences in outcomes with these regimens. There are minimal data on the comparison of drug dosages delivered in pediatric vs adult-type regimens.2 Is it truly the impact of intensity of a pediatric-inspired regimen or a pediatric culture of maintaining a prescribed dosage and schedule strictly with minimal interruptions?3 In addition to these physician practice patterns, the issue is further confounded by referral patterns and patient compliance.

In summary, we present an individual patient data meta-analysis according to a well-defined study protocol (available at: http://www.ctsu.ox.ac.uk/research/meta-trials/leukaemia-metanaalyses/protocol-2009). Of course, we agree that if the outcomes of chemotherapy improve (in the absence of a concomitant improvement in the transplant), this could abrogate the need for a transplant, but we wish to emphasize that this needs to be demonstrated in prospective randomized studies, which, to our knowledge, have not yet been done. The key to the future would seem to be continued study of modern chemotherapy protocols vs allogeneic transplantation as part of well-designed prospective studies.

References


To the editor:

Coordinate expression of transcripts and proteins in platelets

Published reports have demonstrated coordinate expression between messenger RNA and proteins in platelets.1-3 It was therefore surprising that, comparing our RNA-seq data set4 to their quantitative proteomics data set, Burkart et al5 concluded that “in platelets, the occurrence of proteins is not interrelated to the presence of transcripts.” The accompanying highlight article reiterated that “the protein profile
Response: chemotherapy versus allogeneic transplantation in adult patients with acute lymphoblastic leukemia in first remission—not a time for dogma

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