To the editor:

Indications for and current results with allogeneic hematopoietic cell transplantation in patients with myelofibrosis

We enjoyed the recent authoritative review by Dr Tefferi on current management of patients with myelofibrosis. The article provides guidance for hematologists and oncologists in both academic settings and community-based practices. We would like to complement those recommendations by adding information on recent developments in allogeneic hematopoietic cell transplantation (HCT), at present the only therapeutic modality that offers the potential of cure.

The figures quoted in the article include nonrelapse mortality rates of 27% to 50%, overall survival at 3 to 5 years of 35% to 44%, and relapse-free survival of 17% to 51%. However, more recent results from our center in more than 100 patients with myelofibrosis, aged 18-70 years, show a day 100 mortality of 13%; a relapse incidence of 11%, and a 7-year actuarial survival of 61% for HLA-matched related and unrelated transplants. An analysis restricted to patients treated with “modern” conditioning regimens, such as busulfan (BU) with dose adjustments (targeted BU), in combination with cyclophosphamide or fludarabine, shows a 7-year survival of 68% overall, and 77% for patients with antecedent essential thrombocythemia or polycythemia vera. Nonrelapse mortality at 5 years was 34%, but nonrelapse mortality does not equate with treatment-related mortality. Many patients who underwent HCT had life expectancies of < 5 years, based on disease severity, and a 5-year mortality of that magnitude would have been expected without HCT. In our most recent trial (currently being completed), day 100 mortality has been < 5%, thus further enhancing the outlook of patients receiving transplants for myelofibrosis.

Dr Tefferi suggests that patients with myelofibrosis in the low- or intermediate-1-risk categories should not receive transplants. However, an analysis of results presented at the 2010 American Society of Hematology meeting shows a clear advantage of HCT in patients who have not progressed to advanced disease as determined by IWG criteria. That analysis showed a 6-year survival of 80% and 67% for patients with low and intermediate-1 risk, respectively, compared with 54% and 38%, respectively, for patients with intermediate-2- and high-risk disease. The decision for or against HCT in patients with less advanced disease should be made on an individual basis. A patient may be classified as intermediate-1 risk, for example, based on circulating blasts ≥ 1%. This finding, however, may identify patients who are at high risk for disease progression, and are likely to derive the greatest benefit from HCT at that time. Even some patients classified as low risk, particularly if diagnosed at a young age, might opt for HCT. We agree with Dr Tefferi that chronic graft-versus-host disease is a complication that has been observed in as many as 30% to 60% of patients, and much additional work is needed to overcome this problem. However, with the development of less toxic conditioning regimens, the inclusion of antithymocyte globulin into the conditioning regimen or the use of 3-drug prophylaxis, the incidence and, in the majority of patients, the severity of graft-versus-host disease have been reduced substantially.

Many patients have now been followed for more than 10 or even 15 years after HCT, and most have good to excellent quality of life, not requiring continuous treatment with immunosuppressive or other drugs, which is typically not the case in nontransplanted patients.

As we stated clearly in a recent Perspective in this journal, not every patient is a candidate for HCT. However, we believe that all patients should be provided with up-to-date information to allow for conclusions and decisions based on current data.

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References