CORRESPONDENCE

Re: Stem Cell Transplant Numbers Decline; Research Continues

A recent news item *(1)* in the Journal presents data generated from the Autologous Bone Marrow Transplant Registry in North America and reports a marked decline in autologous hematopoietic stem cell transplants (HSCT) in North America from 1998 through 1999. A similar trend is predicted for allogeneic HSCT, and some of the reasons are discussed. We would like to extend these observations with data from the European Group for Blood and Marrow Transplantation (EBMT), point to similarities and differences, and add other potential reasons for the reported declines.

Since 1990, EBMT has been collecting and reporting annually the numbers of HSCT in Europe according to disease indication, donor type, and stem cell source *(2)*. These reports cover virtually all major transplant teams and more than 90% of all HSCT performed in Europe. For 1999, a total of 21 430 HSCT were performed by 580 teams in 35 European countries. Of these HSCT, 18 720 were first transplants, with 5879 (31%) of them being allogeneic and 12 841 (69%) of them being autologous *(3)*.

Fig. 1 shows the development since 1990 for allogeneic (top panel) and autologous (bottom panel) HSCT. Allogeneic HSCT have continued to increase as in previous years, with 571 more transplants in 1999 (5879) than in 1998 (5308). In contrast, there has been an absolute decrease of 252 autologous HSCT from 13 092 in 1998 to 12 841 in 1999.

There are differences between the disease indications. Allogeneic HSCT have increased for all disease categories, with the exception of severe aplastic anemia, thalassemia, where numbers have remained stable. An increase in autologous HSCT was observed for acute myeloid leukemia, myelodysplastic syndromes, chronic lymphocytic leukemia, multiple myeloma, Hodgkin's disease, neuroblastoma, germ cell cancer, and Ewing's sarcoma. A decrease in autologous HSCT was observed for acute lymphocytic leukemia, chronic myeloid leukemia, non-Hodgkin's lymphoma, soft-tissue sarcomas, ovarian cancer, and most markedly for breast cancer, with 692 HSCT fewer in 1999 than in 1998 (1682 versus 2374). This decrease in autologous HSCT for breast cancer already began in 1998 and peaked in 1997 *(4)*.

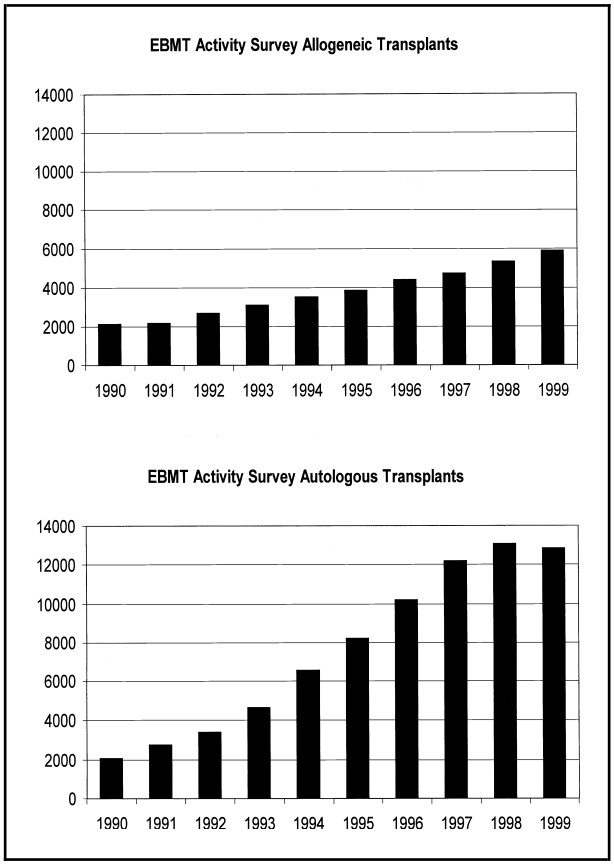

Fig. 1. Top panel: numbers of allogeneic hematopoietic stem cell transplants (HSCT) in Europe (first transplants only) from 1990 through 1999. **Bottom panel:** numbers of autologous HSCT in Europe (first transplants only) from 1990 through 1999. EBMT = European Group for Blood and Marrow Transplantation.

The activity surveys do not reveal reasons for the increase or the decrease in rates of HSCT for given disease indications. They only present the data. Medical reasons were discussed previously by Twombly *(1)*. The EBMT activity survey, based on more than 600 teams (the teams were contacted, and 580 replied in 1999—an approximately 95% return), points to an additional problem. Several teams, especially the smaller ones, personally communicated their reluctance to present their numbers for publications. Ongoing discussions on constraints and health-care regulations in transplantation medicine might influence such decisions. Hence, underreporting might, in part, explain some of the differences between Europe and the United States.

In summary, comprehensive European data show a continuing increase in HSCT for most indications and a distinct reduction in activity for autologous HSCT in breast cancer. Generalizations about a decline in HSCT are misleading.

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(3) Gratwohl A, Passweg J, Baldomero H, Urbano-Ispizua A. Hematopoietic stem cell transplant activity in Europe 1999. Bone Marrow Transplant. In press 2001.
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