ASBMT eNews

AMERICAN SOCIETY FOR BLOOD AND MARROW TRANSPLANTATION

October 2013

TRANSLATIONAL SCIENCE STUDIES

Tim-3 Levels Linked to Certain Types of GVHD

Patients with mid-gut and upper-gut graft-versus-host disease (GVHD) have higher levels of T cell Ig and mucin domain 3 (Tim-3) than patients without GVHD, reports a study published in *Biology of Blood and Marrow Transplantation.* However, after performing a follow-up evaluation to measure Tim-3 levels in plasma samples from 127 patients, researchers discovered that mid-gut GVHD was more severe in patients with higher Tim-3 concentration levels, compared to patients with upper-gut GVHD, patients without GVHD and normal controls. In addition, patients with grade 2 to 4 acute GVHD had increased surface expression of Tim-3. Researchers concluded that targeting the Tim-3 immune regulatory pathway may improve GVHD control. More...

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Mixed Chimerism and Systemic Tolerance Achieved Without Myelosuppression

Using proapoptotic small-molecule Bcl-2 inhibitor ABT-737 to increase the role of the proapoptotic Bcl-2 factor Bim, researchers were able to induce mixed hematopoietic chimerism and reverse the antitolerogenic effect of calcineurin inhibitors in mice. Peripheral donor-reactive lymphocytes were deleted after a short conditioning protocol of ABT-737 combined with costimulation blockade and a low dose of cyclosporine A. The combination conditioning protocol also improved mixed chimerism and systemic tolerance across full major histocompatibility complex barriers. Both the mixed chimerism and systemic tolerance were accomplished without myelosuppression and by utilizing moderate doses of bone marrow cells. Researchers of the study published in *Blood* concluded that immunological tolerance can be achieved by modifying the apoptosis pathway in peripheral lymphocytes and may be a useful clinical approach. More...

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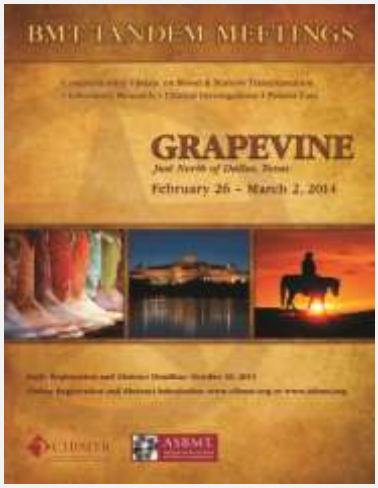

ASBMT
American Society for Blood and Marrow Transplantation

A Word From President Fred LeMaistre, MD

Q. Does hematopoietic stem cell therapy have value? A. Of course.
Q. Can that value be measured?

The National Marrow Donor Program recently hosted a two-day forum for payers to consider issues related to hematopoietic cell transplantation (HCT) access, quality and costs. It was satisfying to hear presentations and follow-up discussions that were informed by the efforts of our field: registry data and treatment outcome studies of the Center for International Blood and Marrow Transplant Research (CIBMTR), clinical research through the Blood and Marrow Transplant Clinical Trials Network (BMT CTN), donor searches through the National Marrow Donor Program (NMDP), and quality initiatives through Foundation for Accreditation of Cellular Therapy (FACT). I'm not sure that any other field of medicine can approach our level of achievements in these areas.

A number of the forum speakers presented a definition of "value," expressed in the equation *Value = Quality/Cost*. I think the formula is useful, and I readily acknowledge that *Cost* and *Quality* can be assigned numerical units. But I'm somewhat less confident about numerical units for *Value*.

For example, assuming the equation is valid, if the *Quality* and *Cost* are both reduced by half, the *Value* of the transplant remains the same. But I'm sure that's not true.

And, again, assuming the equation's validity, its mathematical inversion must also be true: *Quality = Value x Cost.* But I doubt that anyone believes that.

A few thoughts about the components of the equation:

Quality. The leadership of CIBMTR in prospective and observational research has been fundamental to the success of our field. We are fortunate that CIBMTR administers the Stem Cell Therapeutic Outcomes Database (SCTOD) because its volunteer and staff leaders understand the complexity of reporting HCT outcomes, and their collaborative approach is serving us and our patients well. The SCTOD provides a transparent foundation upon which we will continue to build.

Quality systems and processes also are defined and regularly updated in FACT/JACIE standards, and transplant programs can demonstrate that they are meeting those standards through accreditation. The nearly 200 FACT-accredited programs are testament to the importance and success of this quality assurance program.

However, it was clear from the discussion at the forum that we need to continue to refine our measurement of quality outcomes to assure the best possible care for our patients. In this regard, FACT is establishing a "blue ribbon" panel to address quality outcomes measurement.

Cost. Understanding and controlling the drivers of cost is an area where we have opportunity to do more. We can benefit by better defining the scope of care needed by our patients, the best practices for care delivery, and the most efficient delivery systems. ASBMT committees on practice guidelines and reimbursement will continue to inform these efforts.

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PRESIDENT'S MESSAGE (CONTINUED FROM PAGE 2)

Value. Copied below is an e-mail I received a while back that speaks to value:

From: K.M.
To: Fred LeMaistre
Subject: 19 Years Later

Happy Anniversary!! Search your memory. 19 years ago today, I had a bone marrow transplant performed by you & your wonderful team. I just wanted to say thank you again & let you know I am having a quality life. My son is 21 now. I own & operate 3 businesses.

Please tell my favorite nurses that I send my love & my thanks for everything.

Thank you Always!!!!!!!!!! K.M.

I applaud comparative effectiveness research and efforts to define and measure value. Those measurements will continue to evolve and be improved.

Yet, I think you'd agreed that it isn't easy to assign numerical units of value to the outcome reported in the e-mail from K.M.

- Fred

BMT TANDEM MEETINGS

Early Registration Discount Deadline is October 10 for 2014 BMT Tandem Meetings
Online registration and housing is now open for the 2014 BMT Tandem Meetings, which will be held Feb. 26 – March 2 in Grapevine, Texas, just north of Dallas. Links to meeting registration, housing reservations, the preliminary program, abstract submission and parallel conferences can be found in one convenient location. More...

Abstract Submission Deadline is October 10 for BMT Tandem Meetings
The Abstract submission process for the BMT Tandem Meetings in Grapevine, Texas, just north of Dallas, is now open through Oct. 10. Invitations for oral presentations will be offered to 90 authors whose abstracts receive the highest scores from the review committees. Many others will be accepted for poster presentation. More...

Travel Grants Available for Hem/Onc Fellows
ASBMT members can nominate hematology and oncology fellows for travel grants to attend the 2014 BMT Tandem Meetings in Grapevine, Texas, just north of Dallas. Grants of $1,000 each will be awarded to introduce young clinicians and investigators to the field of hematopoietic cell transplantation. More...

Association News

Oct. 1 Deadline for New Investigator Awards

New investigator awards of $60,000 each, supported by Amgen, Genentech, Fresenius Biotech, Millennium, Otsuka and ASBMT, will be presented at the 2013 BMT Tandem Meetings. The deadline for applications is Oct. 1. More...

Free ASBMT Membership for Trainees

Postdoctoral fellows and physicians-in-training for blood and marrow transplantation are eligible for free membership to the American Society for Blood and Marrow Transplantation. Through October, annual dues will be waived for new trainees who apply for membership to the Society. This program is made possible through a grant from Otsuka America Pharmaceuticals, Inc.
More...

2013 Guidelines: *Recommended Timing for Transplant Consultation*

Studies have shown that for many diseases, hematopoietic cell transplant (HCT) performed early in the disease process is associated with lower risks of transplant-related mortality and disease recurrence. If allogeneic transplant is an option, appropriate planning and early donor identification, including high-resolution HLA typing of patients and potential family donors, is critical for optimal outcomes. To help you quickly access the latest recommendations on timing of referral for autologous or allogeneic transplant, the updated **2013 Guidelines: *Recommended Timing for Transplant Consultation*** is now available. These newly updated guidelines include disease categories for patients at risk for disease progression who should be referred for HCT consultation. Developed by the American Society for Blood and Marrow Transplantation and the National Marrow Donor Program/Be The Match, the recommendations are based on current clinical practice, medical literature and evidence-based reviews. The guidelines are also available in a mobile app and online. For more information, please contact the ASBMT office at mail@asbmt.org.

Translational Science Studies (continued from page 1)

Vaccine Generates Leukemia-Reactive T Cells in Advanced CLL Patients

Advanced chronic lymphocytic leukemia (CLL) patients vaccinated with whole leukemia cells after allogeneic hematopoietic cell transplantation (HCT) experienced an increase in leukemia-reactive T-cells and antitumor immunity, according to a study appearing in *The Journal of Clinical Investigation*. Between days 30 and 45 after transplantation, 18 patients received as many as six vaccines each of irradiated autologous tumor cells admixed with GM-CSF-secreting bystander cells. At follow-up, the estimated two-year progression-free survival rate for the vaccinated patients was 82% and overall survival was 88%. In addition, evaluation of peripheral blood mononuclear cells collected from patients after vaccination indicated that CD8+T cells consistently fought autologous tumor, but not alloantigen-bearing recipient cells with increased secretion of the effector cytokine IFN-γ. This was not the case for T cells from nonvaccinated CLL patients undergoing allogeneic HCT. Researchers also confirmed that 17% of CD8+ T cell clones isolated from four vaccinated patients reacted against CLL-associated antigens. These study results led researchers to conclude that autologous tumor cell vaccination is an effective method for long-term leukemia control after allogeneic HCT.
More...

Clinical Research

Presence of Iron Overload Does Not Affect Allogeneic HCT Patient Outcomes

Iron overload prior to allogeneic hematopoietic cell transplantation (HCT) does not affect adult patient outcomes, according to study results published in a recent issue of *Blood*. Liver magnetic resonance imaging was performed on 88 patients with ferritin levels greater than 500 ng/mL to determine liver iron content (LIC). Patients were classified as having iron overload if the LIC was greater than 1.8 mg/g. However, when the outcomes of patients with iron overload were compared to those of patients without iron overload one year after transplantation, researchers discovered that there were no differences in the one-year probability of overall survival, nonrelapse mortality, relapse, acute or chronic graft-versus-host disease, organ failure, infections or hepatic veno-occlusive disease. In addition, multivariate analyses did not detect an impact on overall mortality when iron overload is present. Researchers suggest using LIC to define iron overload instead of ferritin. More...

Minimal Residual Disease May Indicate Relapse and Death Risks for AML Patients After Myeloablative HCT

Presence of minimal residual disease (MRD) before myeloablative hematopoietic cell transplantation (HCT) is a better indicator of relapse risk and outcome after HCT than the number of remissions, according to a study comparing outcomes of acute myeloid leukemia (AML) patients in first complete remission (CR1) to those in second complete remission (CR2). The study appearing in *Blood* includes 253 AML HCT patients in either CR1 or CR2 whose bone marrow aspirates had been analyzed by 10-color flow cytometry. These results indicate that three-year overall survival estimates for patients in CR1 were 73% for those without MRD and 32% for those with MRD. Survival estimates associated with CR2 were 73% for MRD-negative patients and 44% for MRD-positive patients. Outcomes were similar for relapse: 21% for MRD-negative patients and 58% for MRD-positive patients in CR1, and 19% for MRD-negative patients and 68% for MRD-positive patients in CR2. Researchers determined that study participants who tested positive for MRD prior to myeloablative HCT had a 2.61 times greater risk of death and a 4.9 times greater risk of relapse. However, researchers did not find any evidence that increasing levels of MRD affect the risks of relapse and death. More...

Relapse-Free Survival in Prognostically Favorable AML With Double Mutant CEBPA Patients More Likely After HCT Than Chemotherapy

Adult acute myeloid leukemia patients with double mutant CEBPA (CEBPAdm) have better relapse-free survival rates after allogeneic hematopoietic cell transplantation (HCT) or autologous HCT in complete remission 1 than patients who receive chemotherapy. However, overall survival did not differ among the groups evaluated for the study published in *Blood*. Of the 124 patients included in the study, 45 relapsed. Reinduction therapy was used to treat 42 of the relapsed patients, followed by second complete remission for 35 patients and allogeneic HCT for 33 patients. The study results led researchers to conclude that although AML patients with CEBPAdm benefit from HCT, relapsed patients still have a favorable outcome after reinduction followed by allogeneic HCT. More...

Calendar of Events

•October

Association of Community Cancer Centers
30th National Oncology Conference
October 2-5
Boston, Massachusetts

American Association of Tissue Banks
Annual Meeting
October 2-6
National Harbor, Maryland

BMT Infonet/"Coping With Chronic GVHD" Webinar Series
Skin cGVHD: October 3
Ocular cGVHD: October 10
Oral cGVHD: October 17
Pulmonary cGHVD: October 24
www.bmtinfonet.org/webinars/gvhd to register

Hematologic Malignancies Virtual Education Summit
Live Online CME on Treatment Advances
October 8
www.OMedLive.com to register

International Society for Cellular Therapy
2nd Annual Latin American Regional Meeting
October 9-11
Lima, Peru

2nd International Congress on Controversies in Stem Cell and Cellular Therapies
October 10-13
Berlin, Germany

American Association of Blood Banks
Annual Meeting
October 12-15
Denver, Colorado

•October (Continued)

National Marrow Donor Program/ Be The Match
2013 Council Meeting
October 17-19
Minneapolis, Minnesota

European School of Hematology/Eurocord-Ed/Eurocord World Cord Blood Congress IV and Innovative Therapies for Sickle Cell Disease
October 24-27
Monaco

European Society of Gene and Cell Therapy
Congress 2013
October 25-28
Madrid, Spain

•November

Meredith A. Cowden Foundation
4th Annual Graft vs. Host Disease National Symposium
November 1
Cleveland, Ohio

American Society for Histocompatibility & Immunogenetics
39th Annual Meeting
November 17-21
Chicago, Illinois

European Association of Tissue Banks
22nd Annual Congress
November 20-22
Brussels, Belgium

•December

American Society of Hematology
Annual Meeting
December 7-10
New Orleans, Louisiana

•January

Washington BioLeaders Forum
January 27-29
Washington, D.C.

• February

BMT Tandem Meetings
Combined ASBMT and CIBMTR Annual Meetings
February 26-March 2
Dallas, Texas

• March

National Comprehensive Cancer Network
19th Annual Conference
March 13-15
Hollywood, Florida

Regenerative Medicine: Technologies Enabling Novel Therapies
17th Annual Hilton Head Workshop
March 20-23
Hilton Head Island, South Carolina

Association of Community Cancer Centers
40th Annual Meeting
March 31-April 4
Arlington, Virginia

• 2015

BMT Tandem Meetings
Combined ASBMT and CIBMTR Annual Meetings
February 11-15
San Diego, California

• 2016

BMT Tandem Meetings
Combined ASBMT and CIBMTR Annual Meetings
February 18-22
Honolulu, Hawaii

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Do you have news, responses or opinions to share with us?
Please e-mail the association office at enews@asbmt.org.