Phase II Clinical Trial of Abatacept for Acute Graft-versus-host Disease Prevention in Matched and Mismatched Unrelated Donor Hematopoietic Stem Cell Transplantation

Boston Children's Hospital & Bristol Myers Squibb, supported by the CIBMTR® (Center for International Blood and Marrow Transplant Research®): ABA2 Trial; Post-hoc Analysis

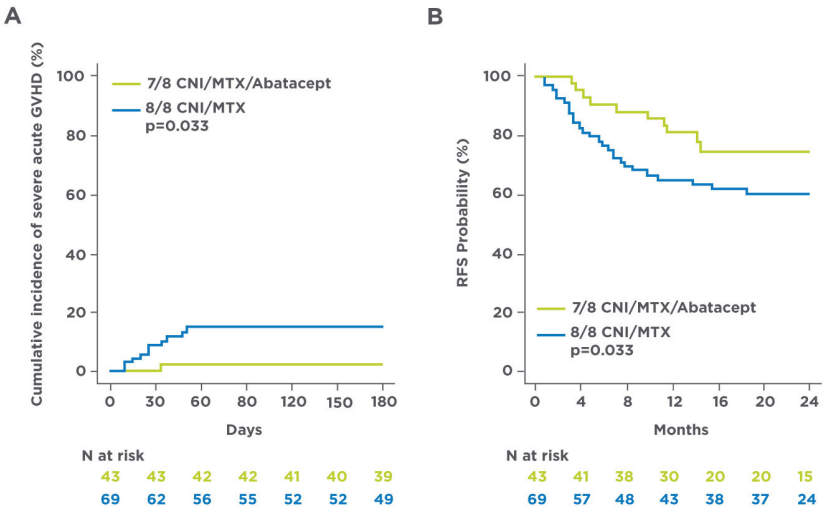
Highlights for Transplant Physicians:

Abatacept used with standard of care (SOC) acute graft-versus-host disease (aGVHD) prophylaxis reduces aGVHD and improves severe aGVHD-free survival (SGFS), especially in mismatched unrelated donor (MMUD) hematopoietic stem cell transplantation (HCT), showing promise as a tool to help expand HCT access.

- The ABA2 multi-center phase II clinical trial determined the efficacy of a T-cell costimulation blocker (abatacept) to reduce aGVHD in either 8/8 matched unrelated donors (MUD) or 7/8 MMUD considering matching at HLA-A, B, C, and DRB1. This led to FDA approval in adult and pediatric patients 2 years or older for aGVHD prophylaxis.
- Abatacept was safe and effective in unrelated donor HCT. Compared with calcineurin/methotrexate (CNI/MTX) SOC alone, abatacept plus CNI/MTX significantly reduced severe aGVHD and increased SGFS, especially in cases of MMUD HCT.
- Data suggest impressive outcomes in both MUD and MMUD HCT recipients, which can increase the safety and feasibility of HCT for all patients. The combined results suggest that abatacept mitigates the disadvantages of mismatching by greatly reducing the risks of severe aGVHD and non-relapse mortality without increasing the risk of relapse.
- Abatacept provides more HCT opportunities for ethnically diverse patients. Additional post-hoc analysis shows the potential to expand HCT access to ethnically diverse patients who may not be able to find an 8/8 fully matched donor as easily.

Results at a Glance:

- Overall survival day 180 post-HCT: 98% aba vs. 75% SOC
- In 7/8 MMUD patients: 2.3% aba vs. 30.2% SOC severe aGVHD, 97.7% aba vs. 58.7% SOC SGFS
- In 8/8 MUD patients: 6.8% aba vs. 14.8% SOC aGVHD, 93.2% aba vs. 82% SOC SGFS
- Severe aGVHD (2.3% vs. 14.8%) and SGFS (97.7% vs. 82%) in MMUD/aba vs. MUD/SOC, with no differences in neutrophil or platelet engraftment, severe chronic GVHD, CMV or EBV viral infections, relapse, or survival



Links

Read the clinical trial results in the Journal of Clinical Oncology (DOI: 10.1200/JCO.20.01086) and the post-hoc analysis in Blood Advances (DOI: 10.1182/bloodadvances.2021005208). Also see the real-world CIBMTR analysis presented at the American Society of Hematology (ASH) annual meeting (DOI: 10.1182/blood-2021-150742) and news of the FDA approval in JAMA (DOI: 10.1001/jama.2021.24966).