Allogeneic Hematopoietic Cell Transplantations Improves Outcomes in Myelodysplastic Syndrome Across High-Risk Genetic Subgroups

A genetic analysis of the Blood and Marrow Transplant Clinical Trials Network (BMT CTN) 1102 study

Study Details:

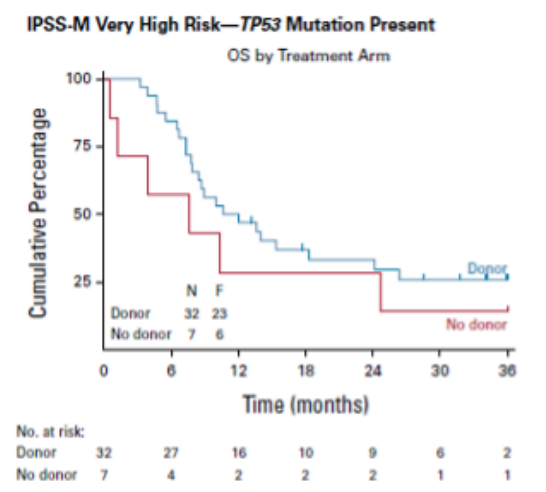
This genetic subanalysis drew from BMT CTN 1102 (DOI: 10.1200/JCO.20.03380), aiming to discern the impact of genetic mutations, notably TP53, on hematopoietic cell transplantation (HCT) outcomes for older (50-75 years old) patients with intermediate to high-risk myelodysplastic syndrome (MDS).

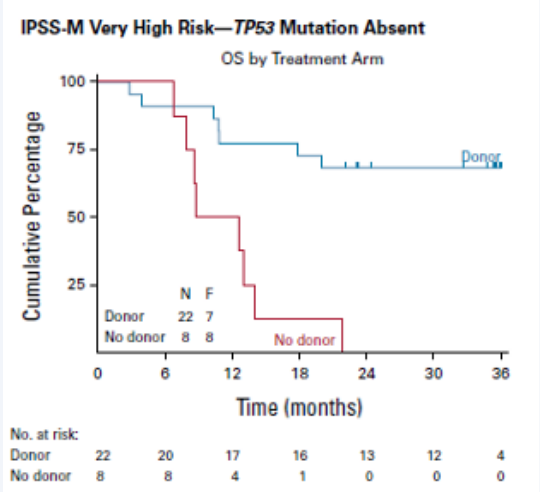
Utilizing genetic data from 309 out of 384 enrolled older patients with advanced MDS, 229 were assigned to the donor arm, and 80 from the no donor arm.

Results at a Glance:

- Gene mutation distribution was consistent between donor and no donor groups, with TP53, ASXL1 and SRSF2 as the most common mutations.
- Overall survival (OS) for patients with TP53 mutations was 21% compared to 52% at 3 years for those without the mutation.
- HCT conferred a notable reduction in death risk even when adjusting for significant mutations.
- Patients with TP53 mutations receiving HCT showed a significantly improved OS than those who did not undergo HCT.

Figure: OS by TP53 Mutation





Clinical Impact:

The study underscores the importance of allogeneic HCT for the treatment of patients with high-risk MDS across genetic subtypes, including in TP53-mutated individuals. Highlighting the life-saving potential of HCT, results support the call for expanded Medicare coverage for these life-extending procedures in older patients.

Read the publication in *Journal of Clinical Oncology* (DOI: 10.1200/JCO.23.00866).

To review more clinical research, visit BeTheMatchClinical.org/Research

nmdp FIND CURES. SAVE LIVES.

BMT CTN Blood & Marrow Transplant Clinical Trials Network