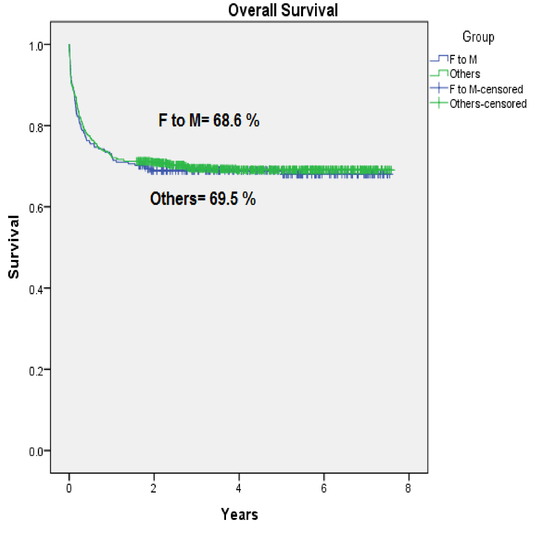
# Outcome of Sex-Mismatched Allogeneic Hemopoietic Stem Cell Transplantation from Human Leukocyte Antigen Identical Sibling Donors in Patients with Hematologic Diseases

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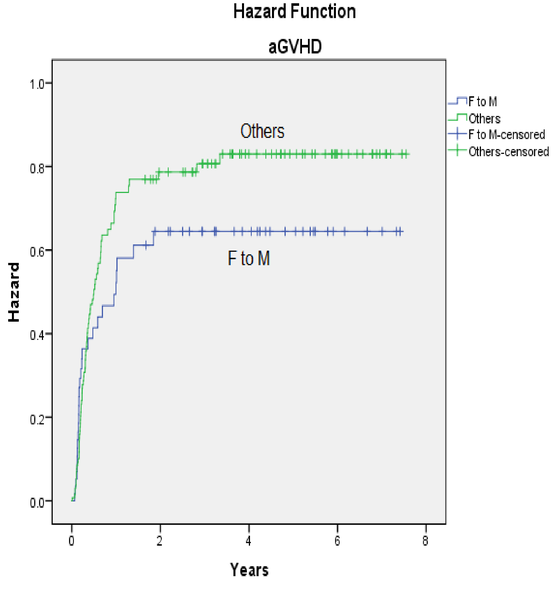
## Background

Hematopoietic stem cell transplantation is a procedure aiming to cure hematologic diseases (1). However, graft-versus-host disease (GVHD) and disease relapse/failure are common side effects of this treatment. Sex-mismatched transplantation, particularly with female donors and male patients, is known to be associated with higher incidence of GVHD or lower incidence of survival (2,3).



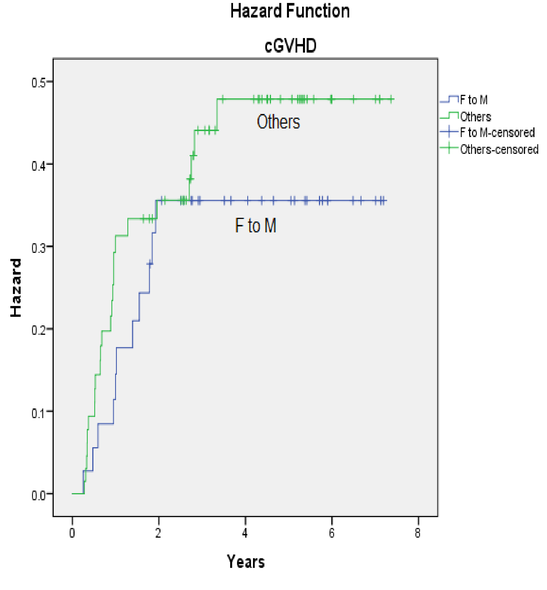

## Objective

The study aimed to determine the incidence of acute and chronic GVHD, overall survival, and non-relapse mortality when male patients received stem cells from female matched sibling donors in allogeneic hematopoietic stem cell transplantation.




## Materials & Methods

Patients were divided into 2 groups. Group 1: female donors to male patients (245 patients). Group 2: male donors to female patients (186 patients) and same-sex donors and patients (506 patients). The median age was 20 years (7 months–60 years).




## Results

Overall survival was 68.6% in group 1 compared to 69.5% in group 2 **(*P*=0.5).** Acute GVHD was 24% in group 1 compared to 19.6% in group 2 **(*P*=0.1).** Chronic GVHD was 15.1% in group 1 compared to 9.6% in group 2 **(*P*=0.02).** Non-relapse mortality was 27.7% in group 1 compared to 25.7% in group 2 **(*P*=0.5).** Relapse/failure rate was 4.9% in group 1 compared to 6.5% in group 2 **(*P*=0.3).**

## Summary

Allogeneic stem cell transplantation for male patients from female donors can be associated with a significantly higher rate of chronic GVHD but a lower incidence of relapse/failure.

## References

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