



Older Sibling Donors are Better than Younger, Unrelated Donors for Older Patients

Important Points:

- An older sibling donor is better than a younger, unrelated donor for patients who are 50 or older.
- Looking at patients with a high performance score before transplant (healthier patients): patients with older sibling donors survive longer, relapse less, and get less GVHD than patients with younger, unrelated volunteer donors.

A hematopoietic cell transplant (transplant) uses healthy blood stem cells from a donor to replace the patient's unhealthy cells. A donor can be a brother or sister (sibling) or an unrelated person. To find a donor, doctors test siblings to see if they match the patient. If not, doctors look for an unrelated donor.

The fastest growing age group getting transplants is patients who are 50 or older, so doctors wonder who would be the best donor for these patients. Usually doctors want to use a sibling donor, if possible. However, if the patient is older, the sibling is probably older, too. Doctors know from other studies that patients with donors 30 years or older get more graft versus host disease (GVHD), a serious side-effect of transplantation.

The researchers in this study asked: Who is the better donor for an older patient – an older sibling or a younger, unrelated volunteer?

To find out, they looked at over 2,000 transplant patients. These patients were 50 or older when they had a transplant between 1995 and 2005. The researchers compared patients with sibling donors aged 50 or older to patients with unrelated donors younger than 50. They looked at whether patients survived, whether they relapsed (their cancer returned), and whether they got GVHD.

The researchers found that how patients do after transplant is affected by how healthy they are before transplant. Doctors measure how healthy patients are before transplant using a performance score. Patients with a high performance score (90 or 100) are healthier. Patients with a lower performance score (less than 90) are less healthy.

For patients with a high performance score before transplant (healthier patients):

- Patients with older sibling donors survive longer, relapse less, and get less GVHD than healthy patients with younger, unrelated donors.

For patients with a lower performance score before transplant (less healthy patients):

- There is no difference in survival or relapse between patients with older sibling donors and patients with younger, unrelated donors. However, patients with older sibling donors get less GVHD than patients with younger, unrelated donors.

This is important information because we know that an older sibling donor is better than a younger, unrelated donor for patients who are 50 or older.

Source:

Who is the better donor for older hematopoietic transplant recipients: an older-aged sibling or a young, matched unrelated volunteer? Alousi AM, Le-Rademacher J, Saliba RM, Appelbaum FR, Artz A, Benjamin J, Devine SM, Kan F, Laughlin MJ, Lazarus HM, Liesveld J, Perales M-A, Maziarz RT, Sabloff M, Waller EK, Eapen M, Champlin RE. *Blood*. 2013 Mar 28;121(13):2567-2573. Epub 2013 Jan 29.