

Less chronic GVHD after cord blood transplant for acute leukemia

What were researchers trying to learn?

In this study, researchers wanted to learn how well cord blood transplants work in patients with acute leukemia. Cord blood transplants use blood-forming cells from a baby's umbilical cord. The blood is collected at birth and frozen until a patient needs it. On transplant day, the blood-forming cells are given to the patient through an intravenous (IV) catheter. The cells move to the bone marrow where they make healthy blood cells that the body needs.

The researchers looked at how often patients developed graft-versus-host disease (GVHD) after cord blood transplant. GVHD is a complication that happens when new cells from the donor (the graft) see the patient's cells (the host) as different and attack them. GVHD can be mild or life-threatening. It can also be acute (tends to happen weeks to months after transplant) or chronic (tends to happen months to years after transplant).

Researchers looked at more than 1,400 patients who had cord blood transplants between 2003 and 2012. All children studied received 1 cord blood unit, and all adults received 2 cord blood units.

What did they find?

They found that after cord blood transplant, patients had:

- About the same amount of acute GVHD compared to bone marrow transplants.
 - Moderate acute GVHD affected about 40% (4 out of 10) patients.
 - Severe acute GVHD affected about 20% (2 out of 10) patients.
- Less chronic GVHD compared to bone marrow transplants.

They also found that if patients received the medicine antithymocyte globulin (ATG) before their transplant, they had less acute GVHD. But ATG did not make any difference in whether patients got chronic GVHD. This was true for the children and the adults in the study.

Important Points:

- **Patients had less chronic GVHD after cord blood transplants.**
- **Patients who received ATG had less acute GVHD.**

Why is this important?

Transplant doctors and their patients can use this study to talk about the risk of acute and chronic GVHD after a cord blood transplant. These results can also help doctors and patients choose between a cord blood transplant and a bone marrow transplant.

What else should I keep in mind about this study?

The results of research studies are always limited in what they can and can't tell you. In this study, only patients with acute leukemia were studied, so the results may not apply to patients with other diseases.

Also, other research studies have found that giving patients ATG had little effect on transplant results. So the finding in this study, that using ATG led to lower rates of acute GVHD, may not be true in all cases.

Questions to ask your doctor

If a blood or marrow transplant is a treatment option for you, you may want to ask your doctor:

- Is a cord blood transplant an option for me? Why or why not?
- How does my disease or treatment affect my risk of getting GVHD?
- How many cord blood transplants have been done at this hospital?

Learn more about

- [This research study](#)
- [Cord blood transplant](#)

Source:

Chen Y-B, Wang T, Hemmer MT, et al. GVHD after umbilical cord blood transplantation for acute leukemia: An analysis of risk factors and effect on outcomes. Bone Marrow Transplantation. 2017 Mar 1; 52(3):400-408. Epub 2016 Dec 12. PMC5332289.

About this research summary

Ground-breaking research into blood and marrow transplant is happening every day. That research is having a significant impact on the survival and quality of life of thousands of transplant patients. But the research is written by scientists for scientists. By providing research news in an easy-to-understand way, patients, caregivers, and families have access to useful information that can help them make treatment decisions.

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