

# Rare bone marrow transplant done in SMS hospital

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JAIPUR: In a major breakthrough, the Sawai Man Singh hospital doctors claimed that they have successfully conducted an allogenic bone marrow transplant and saved a 21-year-old girl from Sawai Madhopur, who was suffering from aplastic anemia.

In allogenic bone marrow transplant, doctors take stem cells from a donor unlike in autologous transplant, where stem cells are taken from the patient's own body. The allogenic transplant is more challenging.

After allogenic bone marrow transplant, the blood group of the patient becomes similar to the blood group of the donor. The blood group of the patient was A positive and has now become B negative, which was the donor's blood group. Now this breakthrough has increased the hope of a permanent treatment for thalassemia.

Dr Hemant Malhotra, head of the hospital's medicine oncology department, has conducted five autologous bone marrow transplants so far but this is for the first time they have conducted allogenic bone marrow transplant. They claimed that it was the first in state.

"In allogenic bone marrow transplant, we do not have to find a person (donor) of the same blood group. But, the important thing is human leukocyte antigen (HLA). The HLA of a patient should match the HLA of the donor, which is necessary for allogenic bone marrow transplant," Dr Jasuja said.

It was challenging to find a donor with HLA matching. But, it came as shot in the arm for the doctors when the HLA of the patient's brother matched with that of the patient.

Around one-and-a-half months ago, the girl from Sawai Madhopur, suffering from aplastic anemia came to the hospital. It was a bone marrow failure syndrome, where the bone marrow does not produce anything. Her platelets count and hemoglobin level had reduced significantly. She couldn't stop bleeding due to the low platelet count. Curing her was a challenge for the doctors.

Dr Sandeep Jasuja, SMS hospital's bone marrow transplant unit in-charge and assistant professor medical oncology, said, "The platelet count in the patient was as low as 5,000 platelets per microliter (mcL). We had no other option than to go for allogenic transplant."

On November 18, the doctors conducted the transplant by taking stem cells from the donor and transfuse it in the veins of the patient. "There were apprehensions as there were

chances that the body may reject foreign bodies (stem cell). But we kept monitoring her health and gave her high immunosuppressive drugs. Also, high doses of chemotherapy were also given to her. There was risk of high doses making adverse effect on kidney and liver, but it all went well. Now, after a month-and-a-half of bone marrow transplant, the girl has recovered. She does not need any blood transfusion. Her platelet counts have increased from 5,000 to 3.5 lakh and her hemoglobin has also increased."