Rare stem cell transplant gives girl a brighter future

Doctors at Children's Medical Center save Springfield child from a lifetime of ailments and probable strokes.

Thursday, July 19, 2007

by Anthony Gottschlich

In 2005 Shylynn Turner suffered two strokes that hobbled her right leg and hampered the use of her right hand.

She was just 2 years old.

A lifetime of other ailments and probable strokes awaited the Springfield toddler, all because of sickle cell disease, the inherited blood disorder most often found in blacks, Hispanics and others with genetic roots in tropical climates.

Shylynn Turner, 4, picks flowers with her sister Arionna, 2, in the backyard of their Springfield home Wednesday. Arionna donated the stem cells for a transplant to combat Shylynn's sickle cell anemia last year.

Two years later, the 4-year-old daughter of Ben and Amber Turner can look to a much healthier future, thanks to little sister Arionna and a stem cell transplant performed last year by doctors from Children's Medical Center of Dayton.

"She is cured of her sickle cell disease," said Dr. Mukund Dole, a pediatric hematologist and oncologist at Dayton Children's.

Dole can say that with confidence now that Shylynn has passed the one-year anniversary of the transplant, Children's first success at the rare, complicated and potentially fatal procedure. An earlier transplant years ago failed, he said.

Sickle cells are abnormally shaped red blood cells that can get stuck in blood vessels and block blood flow, which can cause pain, strokes, organ damage and infections. The only way to rid the body of the cells is through a stem cell transplant, Dole said.

The idea is that normal blood cells (red cells, white cells and platelets) and immune cells (lymphocytes) will arise from the donated stem cells, which can come from bone marrow, peripheral blood and umbilical cord blood.

But the chance of a donor sibling who is a perfect tissue match is only about 25 percent, Dole said, which is why the procedure is so rare.

It's also risky because the patient first must undergo intensive chemotherapy to wipe out the abnormal blood cells and bone marrow, which devastates the patient's immune system.

Worldwide several hundred patients have undergone the procedure with a success rate of 85 percent, Dole said.

"I am happy, I feel very blessed and Shylynn's very happy since they took her off her restrictions," Amber Turner said. "She gets to go out and play with other kids now. She's really been enjoying it."

Taken from the **Dayton Daily News**