

PROMISING MEDICAL EFFECTS BROUGHT BY UMBILICAL CORD BLOOD STEM CELLS

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The three-year-old toddler is able to move around a lot more after receiving his cord blood transplants.

With the rising awareness of the application of umbilical cord blood in medical treatment, there is an increasing number of people choosing to preserve their umbilical cord blood for future consideration. As it contains abundant hematopoietic stem cells, it provides the future capability of differentiating into various kinds of cells under certain conditions to repair the damage part of the body.

Yuecheng Jiang, a three year old boy with cerebral palsy, has received two courses of autologous umbilical cord blood stem cells therapy last October and this April.

The little boy was born healthy, however his mobility skills developed very slowly by the time he was roughly three months old. He exhibited respiratory problems and showed difficulty in sleeping at the age of eight months. Moreover, when he was nine months old, after a spate of convulsions, his heartbeat suddenly stopped temporarily and he lost consciousness.

The brain neurosurgeon explained: “These conditions all together affected his brain. A shortage of oxygen delayed his growth and language development. Other genetic and body tests were normal. He did not have a family history of epilepsy, and his two elder brothers were very healthy.

According to his mother, improvement emerged shortly after stem cell transplantation. “The next day, I could feel his physical progress. He was able to walk when I held his hand, which had never happened before. What’s more, he achieved a much sounder sleep. Before transplantation, he woke up a dozen times at night and we needed to hold him while sleeping. After the first treatment, he could almost sleep until the morning without waking up. After the second course of treatment, he was able to walk a few steps independently. We were all

very happy for his improvements. Though the language development was still limited, “he understood more and smiled more. I can feel that he is making progress every day.”

It has been proven that umbilical cord blood stem cells play an effective role in treating leukemia, lymphoma and thalassemia. Currently, bone marrow donation is the most common source of stem cells, but it is not easy to find a match. In contrast, cord blood stem cell transplantation has a lower requirement for allogeneic transplant gene match. The younger the patient, the better efficacy the stem cells will achieve.

According to his attending doctor, by studying MRI images, scientists abroad have determined the mechanism of stem cells as they are voluntarily attracted to the damaged parts, and then differentiate into new cells while increasing blood supply for repair.

References: <http://www.chinabiotherapy.com/HornetcornNews/2015/339.html>