

BEIKE BIOTECHNOLOGY

Beike-Coordinated Patient Case Study

Cerebral Palsy

Male, 6 years old, May 2012

This case study has been produced by Beike Biotechnology in association with the doctors and medical staff of the Bethune International Peace Hospital. Information concerning the provided treatment and patient condition upon admission and discharge has been distributed to Beike by the treating facility's medical staff. All follow-up data has been provided directly to Beike by the patient and/or patient's guardians. For additional information about treatment, please send an inquiry at www.stemcellschina.com

Background

Age: 6 years old

Sex: Male

Nationality: Argentinean

Date of Admission: May 2, 2012

Date of Discharge: June 1, 2012

Treating Facility: Bethune International Peace Hospital, Shijiazhuang, China

Diagnosis on Admission: Cerebral Palsy

Stem Cell Type: Beike-produced umbilical cord blood-derived stem cells (UCBSC)

Condition On Admission

The patient's main presenting complaint was of a movement disorder and development delay since birth. The patient was conscious and his awareness and perceptive functions were normal. He was unable to speak. He could make some movements but was unable to fully control these. Muscle tone in all limbs was high.

Treatment Schedule

Patient received 6 Beike-produced umbilical cord blood-derived stem cell (UCBSC) packets by intravenous (IV) injection and lumbar puncture (LP) as per schedule below:

Number	Date	Cell Type	Delivery Method	Side Effects
1	May 4, 2012	UCBSC	IV	none reported
2	May 9, 2012	UCBSC	LP	none reported
3	May 14, 2012	UCBSC	LP	none reported

4	May 18, 2012	UCBSC	LP	none reported
5	May 23, 2012	UCBSC	LP	none reported
6	May 28, 2012	UCBSC	LP	none reported

Condition On Discharge

Following the stem cell treatment the patient had no fever, headache or other side effects. The doctors observed an improvement in his sitting balance and trunk control and they also noted his head control was better. The family reported small improvements in their son's overall physical condition at the time of discharge. Below is an excerpt from their discharge evaluation:

Symptom	Parents' Assessment of Improvement
Spasticity	Small improvement
Trunk muscle strength	Small improvement
Limb muscle strength	Moderate improvement
Head Control	Small improvement
Range of movement	Small improvement
Involuntary movements	Small improvement
Balance	Not applicable
Standing up	Small improvement
Walking	No improvement
Speech (babbling in infants)	Small improvement
Drooling	No improvement
Swallowing	Moderate improvement
Appetite	Significant improvement
Learning disability	Moderate improvement
Mood	Moderate improvement

Follow-Up Information

Condition 3 months after treatment: The family was very happy with the outcome of the treatment at this time and they reported their son had gained significant improvements in his quality of life. On the 3-month follow-up form they wrote: “He has improved head control, trunk control and mom and dad can now be said. He is now blowing and making objects with his hands with better control than before, he more firmly takes steps and has improved fine motor skills, now try to place small items in small containers.” Please see the excerpt below from his follow-up report:

Symptom	Parents' Assessment of Improvement
Spasticity	Significant improvement
Trunk muscle strength	Moderate improvement
Limb muscle strength	Significant improvement
Head Control	Significant improvement
Range of movement	Moderate improvement
Involuntary movements	Moderate improvement
Balance	Moderate improvement
Standing up	Moderate improvement
Walking	Moderate improvement
Speech (babbling in infants)	Moderate improvement
Drooling	No improvement
Swallowing	Moderate improvement
Appetite	Significant improvement
Learning disability	Significant improvement
Mood	Significant improvement

Disclaimer: The medical information provided in this document is an information resource only and is not to be used or relied on for any diagnostic purpose.

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