

BEIKE BIOTECHNOLOGY

Patient Case Study

Cerebral Palsy

Male, 6 years, May - June 2012

Summary

Diagnosis	Sex	Age	Nationality
Cerebral Palsy	Male	6 years	Argentina
Injections	Cell type	Admission date	Discharge date
6	UCBSC	May 2nd 2012	June 1st 2012

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. His four limbs were spastic.

Treatment Schedule

The patient received 6 umbilical cord blood-derived stem cell (UCBSC) packets by intravenous (IV) and intrathecal injections, as per the schedule below:

Number	Date	Cell Type	Delivery Method	Side Effects
1	2012-05-04	UCBSC	Intravenous Injection	none reported
2	2012-05-09	UCBSC	Intrathecal Injection	none reported
3	2012-05-14	UCBSC	Intrathecal Injection	none reported

Number	Date	Cell Type	Delivery Method	Side Effects
4	2012-05-18	UCBSC	Intrathecal Injection	none reported
5	2012-05-23	UCBSC	Intrathecal Injection	none reported
6	2012-05-28	UCBSC	Intrathecal Injection	none reported

Condition at discharge

Following 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 the discharge improvement evaluation form filled by the patient's parents:

Symptom	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
Standing up	Small improvement
Walking	No improvement
Speech (babbling in infants)	Small improvement
Swallowing	Moderate improvement
Appetite	Significant improvement
Learning disability	Moderate improvement
Mood	Moderate improvement

Condition 3 months after treatment

The family reported that 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 as excerpt of his 3-month follow-up report (submitted by the patient’s parents):

Symptom	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
Swallowing	Moderate improvement
Appetite	Significant improvement
Learning disability	Significant improvement
Mood	Significant improvement