BEIKE BIOTECHNOLOGY

Patient Case Study

Olivopontocerebellar Atrophy Male, 58 years old, July - August 2011

Background

Age: 58 years old Sex: Male Nationality: American Date of Admission: July 20, 2011 Date of Discharge: August 18, 2011 Treatment Center: Qingdao Chengyang People's Hospital, Qingdao, China Diagnosis on Admission: Olivopontocerebellar Atrophy

Condition On Admission

The patient's main complaint upon admission was of an unsteady gait for the previous 20 years and slurred speech for the last 15 years. Physical examination showed his consciousness, perception and judgment skills were all normal but his speech was slurred. Overall muscle tone was normal and muscle strength in the upper limbs was normal. The muscle strength scores in the lower limbs were inferior, with the left side weaker than the right. Deep tendon reflexes were normal and deep and shallow sensations were also normal. The finger-to-nose test was slow and unstable and the heel-knee-tibia test was also unstable and shaky.

Treatment Schedule

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

Number	Date	Cell Type	Delivery Method	Side Effects
1	July 22, 2011	UCBSC	IV	none reported
2	July 27, 2011	UCBSC	LP	none reported
3	August 1, 2011	UCBSC	LP	none reported
4	August 5, 2011	UCBSC	LP	none reported
5	August 10, 2011	UCBSC	LP	none reported
6	August 15, 2011	UCBSC	IV	none reported

Condition On Discharge

The doctors noted the patient had gained muscle strength in the lower limbs and had better balance and stability. He was recommended to continue rehabilitation exercises and movements upon returning home.

Follow Up Information

Condition 3 months after treatment: The patient completed the 3-month follow up report and felt he was having significant improvements in his physical condition. He was also continuing to gain improvements at this time. Please see excerpt below from his follow up report:

Symptom	Parents' Assessment of Improvement	
Trunk control	Moderate improvement	
Balance	Moderate improvement	
Movement in general	Moderate improvement	
Walking	Moderate improvement	
Crawling	Significant improvement	
Standing up	Moderate improvement	
Spasticity	Moderate improvement	
Overall strength	Significant improvement	
Limb muscle strength	Significant improvement	
Trunk muscle strength	Moderate improvement	
Range of movement	Significant improvement	
Fine motor control	Moderate improvement	
Hand control	Significant improvement	
Speech	Significant improvement	

Condition 12 months after treatment: The patient also completed a follow up report 12 months after his treatment to report any additional changes since on his 3-month report. At this time he felt his improvements had stabilized, the progression of his condition had slowed and he was satisfied with the overall treatment outcome. An excerpt of this report is on the next page.

Please see the excerpt below from the patient's twelve month assessment.

Symptom	Parents' Assessment of Improvement	
Trunk control	Small improvement	
Balance	No improvement	
Movement in general	Moderate improvement	
Walking	Small improvement	
Crawling	Moderate improvement	
Standing up	Small improvement	
Spasticity	Moderate improvement	
Overall strength	Moderate improvement	
Limb muscle strength	Moderate improvement	
Trunk muscle strength	Moderate improvement	
Range of movement	Moderate improvement	
Fine motor control	Moderate improvement	
Hand control	Moderate improvement	
Speech	Small improvement	

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