BEIKE BIOTECHNOLOGY

Patient Case Study

Diffuse Brain Injury and Epilepsy Female, 5 years old, Sept - Oct 2010

Background

Age: 5 years old Sex: Female Nationality: South African Date of Admission: September 19, 2010 Date of Discharge: October 29, 2010 Treatment Center: Bethune International Peace Hospital, Shijiazhuang, China Diagnosis on Admission: Diffuse Brain Injury and Epilepsy

Condition On Admission

The chief complaint was of movement and speech impairment following a near drowning accident three years ago. The patient was conscious but showed signs of mental retardation and was only able to understand a few spoken words from her parents. She could not speak or communicate with others. She was able to turn herself over and sit up by herself but could not stand without help. She could walk with a lot of assistance but suffered from very poor balance. The patient also experienced seizures, with a frequency of 10-20 per day. Examination of heart, lungs, and abdomen showed no abnormalities and vital signs were in the normal range.

Treatment Schedule

Patient received 8 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	September 21, 2010	UCBSC	IV	none reported
2	September 25, 2010	UCBSC	LP	none reported
3	September 30, 2010	UCBSC	LP	none reported
4	October 6, 2010	UCBSC	LP	none reported
5	October 11, 2010	UCBSC	IV	none reported
6	October 15, 2010	UCBSC	LP	none reported
7	October 20, 2010	UCBSC	LP	none reported
8	October 25, 2010	UCBSC	LP	none reported

Condition On Discharge

The doctors observed that the patient was more responsive to her environment then before treatment. They also noted that the frequency of seizures decreased. The physical therapists reported the patient gained new function such as being able to kneel and going from sitting to standing independently while holding onto something.

Follow Up Information

Condition 3 months after treatment: The parents report that they are satisfied with the outcome of the treatment and say that their daughter has experienced significant improvements in her physical condition, particularly in the areas of carrying out simple actives, swallowing, and sitting unsupported. In the assessment the parents wrote: "Her sight is much better, understanding us better. Emotionally much improved."

Symptom	Parents' Assessment of Improvement	
Recognizing others	Moderate improvement	
Understanding others	Moderate improvement	
Short term memory	Small improvement	
Long term memory	Small improvement	
Swallowing	Significant improvement	
Slurring speech	Small improvement	
Balance	Moderate improvement	
Coordination of movement	Moderate improvement	
Fine motor control	Moderate improvement	

Please see an excerpt from their assessment below:

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