

BEIKE BIOTECHNOLOGY

Patient Case Study

Spina Bifida

Male, 13 years old, July-August 2012

Background

Age: 13 years old

Sex: Male

Nationality: Serbian

Date of Admission: July 2, 2012

Date of Discharge: August 3, 2012

Treatment Center: Qingdao Chengyang People's Hospital, Qingdao, China

Diagnosis on Admission: Spina Bifida with myelomeningocele

Condition On Admission

The doctor's physical assessment of the patient upon admission found the patient had normal facial symmetry, sensation, and shoulder shrug. Motor neurological examinations showed an upper limbs score of 5 (full power), a proximal lower limbs score of 4, and a distal lower limbs score of 1. The coordinated movement of the upper limbs was normal but the patient could not move his legs at will. The patient could not move his feet but local muscle contraction could be observed. There was a loss of sensation in both ankles and around the tailbone and perineum. The loss of sensation in this area also caused a dysfunction of the sphincter of Oddi.

Treatment Schedule

Patient received 6 umbilical cord blood-derived stem cell (UCBSC) packets by intravenous (IV) injection as per schedule below. There were no remarkable changes in the patient's condition during treatment.

Number	Date	Cell Type	Delivery Method	Side Effects
1	July 4, 2012	UCBSC	IV	none reported
2	July 9, 2012	UCBSC	IV	none reported
3	July 13, 2012	UCBSC	IV	none reported
4	July 18, 2012	UCBSC	IV	none reported
5	July 23, 2012	UCBSC	IV	none reported
6	July 27, 2012	UCBSC	IV	none reported

Follow Up Information

One month following his treatment the patient's family submitted his follow up assessment. They reported he had experienced good improvements in many symptom areas and that his quality of life had significantly improved. The patient himself described the major improvements he was experiencing as such: "I'm starting to feel the feet, and tingling from the knee down."

Please see the excerpt below from their one month post-treatment assessment:

Symptom	Parents' Assessment of Improvement
Balance	Moderate improvement
Movement in general	Moderate improvement
Walking	Moderate improvement
Standing up	Moderate improvement
Overall strength	Significant improvement
Limb muscle strength	Moderate improvement
Trunk muscle strength	Moderate improvement
Range of movement	Significant improvement

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