

BEIKE BIOTECHNOLOGY

Patient Case Study

Spina Bifida

Male, 2 years old, April-May 2010

Background

Age: 2 years 6 months

Sex: Male

Nationality: American

Date of Admission: April 13, 2010

Date of Discharge: May 13, 2010

Treatment Center: Qingdao Chengyang People's Hospital, China

Diagnosis on Admission: Spina Bifida + Chiari Malformation and Hydrocephalous

Condition On Admission

Patient's primary concern was difficult in walking. The muscle strength of both lower limbs was low. The sensation in both lower limbs was abnormal. The ankle joint had limited range of movement. Babinski's sign was negative. All standard pre-treatment tests such as routine bloods, urine, blood biochemistry and prothrombin examination showed no significant abnormalities. The electrocardiogram and lung x-ray showed no significant abnormality.

Treatment Schedule

Patient received 6 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	April 16, 2010	UCBSC	IV	none reported
2	April 21, 2010	UCBSC	IV	none reported
3	April 26, 2010	UCBSC	IV	none reported
4	April 30, 2010	UCBSC	IV	none reported
5	May 5, 2010	UCBSC	IV	none reported
6	May 10, 2010	UCBSC	LP	Headache

Condition On Discharge

The doctors noted after the stem cell treatment that there was more power and sensation in the patient's legs and his right ankle's movement was better than before. The patient's family reported moderate improvements in their child's condition.

Follow Up Information

Condition 1 month after treatment: The family reported significant improvements. The family wrote the following in the 1 month evaluation:

“He started walking independently and is now getting better everyday because he practices walking everyday. He can now turn and make stops while walking. He is working on not having his hands spread out while walking for balance. One hand is still out for balance but he got one hand down. He is able to control falling so he doesn't hit his head and slows down or speeds up while walking already. He is also having improvement in feeling his feet. He scratched the arch in his left foot. He is starting to have feeling in the bottom of his feet.”

Condition 3 months after treatment: The family was still reporting continued significant improvements at the 3 month time point. Please see their comments below:

“He continues to improve while walking with AFO's (ankle-foot orthotics) on his feet. He is better this month at balance and walking with his feet closer together. His overall strength increased since the last evaluation and his feeling in his legs is still good to his ankles”

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