

# BEIKE BIOTECHNOLOGY

## Patient Case Study

### Traumatic Brain Injury

Female, 46 years, February 2018

#### Summary

Diagnosis	Sex	Age	Nationality
Traumatic Brain Injury	Female	46 years	Brazil
Injections	Cell type	Admission date	Discharge date
7	<a href="#">UCBSC</a>	July 2018	August 2018

#### Condition On Admission

The patient's chief complaint was of weakness in all four limbs for more than 20 years. Patient first noted she had a weakness in both his upper limbs in 1987, which was especially evident in her handwriting. The weakness progressively got worse over time. In 1994, she noticed she had problems walking up and down stairs and would trip over herself from time to time; an MRI confirmed a diagnosis of Ataxia. On physical assessment upon hospital admission she was found to have low muscle tone in all limbs with muscle power of 5/5. Coordination tests such as finger-to-nose and heel-to-tibia showed poor coordination and the patient was unable to walk heel-to-toe. Routine examination showed no other abnormalities.

#### Treatment Schedule

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

Number	Date	Cell Type	Delivery Method	Side Effects
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1	2018-07-13	<a href="#">UCBSC</a>	<a href="#">Intravenous Injection</a>	none reported
2	2018-07-17	<a href="#">UCBSC</a>	<a href="#">Intrathecal Injection</a>	none reported
3	2018-07-20	<a href="#">UCBSC</a>	<a href="#">Intrathecal Injection</a>	none reported
4	2018-07-23	<a href="#">UCBSC</a>	<a href="#">Intrathecal Injection</a>	none reported
5	2018-07-27	<a href="#">UCBSC</a>	<a href="#">Intrathecal Injection</a>	none reported
6	2018-07-31	<a href="#">UCBSC</a>	<a href="#">Intrathecal Injection &amp; Intravenous Injection</a>	none reported

## Condition 1 month after treatment

Condition 1 months after treatment: ?The patient reported significant improvements at one month after his treatment. She stated, “[I] can walk heel to toe, can do the balancing exercise for longer periods of time, can go up and down stairs with no hands.” She also made comments about the importance of continuing to do daily exercise and how it is becoming easier but also feels that the exercises are essential to aiding his continued improvements.

## Condition 12 months after treatment

Condition 12 months after treatment: ?At the 12 month follow up point the patient reported that she was satisfied with the outcome of his treatment which has improved his quality of life and given her moderate improvements overall in his physical condition.

Symptom	Parents’ Assessment of Improvement
Balance	Moderate improvements
Coordination	Moderate improvements
Fine hand movements	Small improvements
Tremors	Not applicable
Control of movement	Moderate improvements
Muscle stiffness	Not applicable
Speech	Moderate improvements
Walking	Moderate improvements
Fatigue	Small improvements