

BEIKE BIOTECHNOLOGY

Patient Case Study

Autism

Male, 10 years old, June - July 2010

Background

Age: 10 years old

Sex: Male

Nationality: Swedish

Date of Admission: June 22, 2010

Date of Discharge: July 26, 2010

Treatment Center: The Second Affiliated Hospital of Nanjing Medical University

Diagnosis on Admission: Autism

Condition On Admission

This patient suffered from autism and learning difficulties for over 6 years. Vital signs were normal. Physical examination showed no abnormalities and normal responses to nervous system tests. Muscle tone and strength of lower limbs were normal. All standard pre-treatment tests such as routine bloods, urine, blood biochemistry and prothrombin examination showed no significant abnormalities.

Treatment Schedule

Patient received 8 umbilical cord-derived mesenchymal stem cell (UC-MSC) packets by intravenous (IV) injection and lumbar puncture (LP), as per schedule below:

Number	Date	Cell Type	Delivery Method	Side Effects
1	June 28, 2010	UC-MSC	IV	none reported
2	July 2, 2010	UC-MSC	LP	none reported
3	July 5, 2010	UC-MSC	IV	none reported
4	July 9, 2010	UC-MSC	LP	none reported
5	July 12, 2010	UC-MSC	IV	none reported
6	July 16, 2010	UC-MSC	LP	none reported
7	July 19, 2010	UC-MSC	IV	none reported
8	July 23, 2010	UC-MSC	LP	none reported

Condition On Discharge

After transplantation of stem cells the patient had no fevers, headache, or other stem cell therapy side effects. There was a noted improvement by the patient's family in the patient's mood, cooperation, and mental ability. The following areas of improvement were noted by the doctors during the patient's stay in Nanjing Hospital:

Categories	Before Treatment	After Treatment
Language/Communication	<ul style="list-style-type: none">- Can't follow some simple commands- Speaks just 1 or 2 words at a time	<ul style="list-style-type: none">- Can follow some commands- Can use simple sentence with 4 or more words
Sociability	<ul style="list-style-type: none">- No eye contact- Uncooperative and resistant	<ul style="list-style-type: none">- Making eye contact- Making contact with others- Following simple requests
Cognitive Awareness	<ul style="list-style-type: none">- Limited interest in a small amount of subjects, mainly computers, animals, and paper	<ul style="list-style-type: none">- Showed new interest in surroundings and objects such as medical equipment
Behavior	<ul style="list-style-type: none">- Can feed himself but no ability to dress himself	<ul style="list-style-type: none">- Able to dress himself and comb own hair

Follow Up Information

At one month post-discharge the family informed our staff that no improvements in addition to those at discharge were observed.

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