

BEIKE BIOTECHNOLOGY

Patient Case Study

Optic Nerve Hypoplasia (ONH) / Septo-optic Dysplasia (SOD)

Female, 2 years, June - July 2011

Summary

Diagnosis	Sex	Age	Nationality
Optic Nerve Hypoplasia (ONH) / Septo-optic Dysplasia (SOD)	Female	2 years	USA
Injections	Cell type	Admission date	Discharge date
7	UCBSC	June 21st 2011	July 11th 2011

Condition On Admission

The patient was admitted for treatment for her vision problem. Physical examination showed the movement of her eyeballs was good. Spontaneous nystagmus was present. Her pupils were normal in shape and reactive to light. The patient could differentiate between light and dark. Eye tests could not be conducted due to her young age; therefore it was difficult to confirm her exact visual acuity. The other tests after admission showed no significant abnormalities.

Treatment Schedule

The patient received 7 umbilical cord blood-derived stem cell (UCBSC) packets by intravenous (IV) injections as per schedule below:

Number	Date	Cell Type	Delivery Method	Side Effects
1	2011-06-24	UCBSC	Intravenous Injection	none reported
2	2011-06-27	UCBSC	Intravenous Injection & Intravenous Injection	none reported
3	2011-07-01	UCBSC	Intravenous Injection & Intravenous Injection	none reported
4	2011-07-04	UCBSC	Intravenous Injection & Intravenous Injection	none reported

Condition at discharge

After treatment the doctors noted the patient could track light with her right eye and the frequency of nystagmus had reduced. The family were pleased with the improvements their daughter had gained during the treatment, especially the improvements in her vision. They also reported at the time of discharge that her bowel function had also improved. The patient was now having a daily bowel movement, whereas prior to treatment it was every 2 or 3 days.

Symptom	Parents' Assessment of Improvement
Light perception	Moderate improvement
Vision in left eye	Small improvement
Vision in right eye	Moderate improvement
Ability to see things clearly	Small improvement
Ability to focus eyes quickly	Small improvement
Ability to keep eyes focused for a long time	Moderate improvement
Ability to see things at a far distance	Small improvement
Nystagmus (uncontrolled eye movement)	Small improvement

Condition 3 months after treatment

The parents completed the Beike follow-up survey three months after the treatment. They were pleased with the improvements the treatment had given their daughter for both her physical condition and quality of life. In addition to the improvements in the symptoms listed below, the parents felt their daughter had more confidence to move around. Below is an excerpt from the parent's completed 3-month follow-up survey:

Symptom	Parents' Assessment of Improvement
Blindness	Moderate improvement
Light perception	Moderate improvement
Ability to see hand movement	Significant improvement
Able to count fingers	Significant improvement
Vision in left eye	Significant improvement
Vision in right eye	Small improvement
Color Vision	Small improvement
Night vision	Small improvement
Ability to see things clearly	Significant improvement
Ability to focus eyes quickly	Significant improvement
Ability to keep eyes focused for a long time	Significant improvement
Ability to see things at a close distance	Moderate improvement
Ability to see things at a far distance	Significant improvement
Nystagmus (uncontrolled eye movement)	Significant improvement

Condition 12 months after treatment

The parents also completed a Beike follow-up survey one year after their daughter's treatment. They were satisfied with the outcome of the treatment and felt their daughter had made significant improvements in her quality of life and had further improved in her overall physical condition. Below is an excerpt from the parent's completed 1 year follow-up survey:

Symptom	Parents' Assessment of Improvement
Blindness	Significant improvement

Light perception	Moderate improvement
Ability to see hand movement	Moderate improvement
Able to count fingers	Significant improvement
Vision in left eye	Significant improvement
Vision in right eye	Small improvement
Visual field	Small improvement
Color Vision	Significant improvement
Night vision	Small improvement
Ability to see things clearly	Moderate improvement
Ability to focus eyes quickly	Small improvement
Ability to keep eyes focused for a long time	Moderate improvement
Ability to see things at a close distance	Moderate improvement
Ability to see things at a far distance	Small improvement
Nystagmus (uncontrolled eye movement)	Significant improvement

BEIKE BIOTECHNOLOGY CO., LTD.
www.beikebiotech.com

info@beikebiotech.com

16F Building, 18 Keyuan Rd.,
 South Area, Shenzhen Hi-Tech Industrial Park
 Shenzhen, China 518058