BEIKE BIOTECHNOLOGY

Patient Case Study

Optic Nerve Hypoplasia (ONH) / Septooptic Dysplasia (SOD)

Female, 16 months, January - March 2011

Summary

Diagnosis	Sex	Age	Nationality
Optic Nerve Hypoplasia (ONH) / Septooptic Dysplasia (SOD)	Female	16 months	Irish
Injections	Cell type	Admission date	Discharge date

Condition On Admission

The patient had bilateral vision deterioration and a development delay since she was 5 months old. On physical examination her eyeballs were normal and pupils were equal and reactive to light. She could recognize light and darkness. Nystagmus was present. She could not look at objects and mostly let her head hang down to the floor when sitting.

Treatment Schedule

The patient received 8 umbilical cord-derived mesenchymal stem cell (UCMSC) packets by intravenous (IV) injections as per the schedule below:

Number	Date	Cell Type	Delivery Method	Side Effects
1	2011-01-19	UCMSC	Intravenous Injection	none reported
2	2011-01-21	UCMSC	Intravenous Injection	none reported
3	2011-01-24	UCMSC	Intravenous Injection	none reported
4	2011-01-28	UCMSC	Intravenous Injection	none reported
5	2011-02-11	UCMSC	Intravenous Injection	none reported
6	2011-02-16	UCMSC	Intravenous Injection	none reported
7	2011-02-21	UCMSC	Intravenous Injection	none reported
8	2011-02-25	UCMSC	Intravenous Injection	none reported

Condition at discharge

Stem cell treatment was completed without any adverse events or side effects. At the end of the treatment period the patient was able to reach out and grasp objects 50cm in front of her and track light with her eyes. There was also a decrease in the nystagmus.

Condition 1 month after treatment

One month after their daughter's treatment the parents completed a Beike follow-up survey and in this survey they reported that their daughter had made significant progress in her physical condition and that her quality of life had significantly improved. At the time they also felt that new improvements were still being made by their daughter.

Condition 12 months after treatment

Please see an excerpt from the patient's 12 month assessment below:

Symptom	Parents' Assessment of Improvement
Blindness	Significant improvement
Light perception	Significant improvement
Ability to see hand movement	Significant improvement
Vision in left eye	Significant improvement

Vision in right eye	Significant improvement
Night vision	Significant improvement
Ability to see things at a close distance	Significant improvement
Nystagmus	Significant improvement
Strabismus	Significant improvement