BEIKE BIOTECHNOLOGY

Patient Case Study

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

Female, 6 years, February 2019

Summary

Diagnosis	Sex	Age	Nationality
Optic Nerve Hypoplasia (ONH) / Septooptic Dysplasia (SOD)	Female	6 years	USA
Injections	Cell type	Admission date	Discharge date

Condition On Admission

Baylie had learning disability. She had Diabetes Insipidus and autistic behaviors. She did not talk but could understand. She was affected by constipation and lack of sleep. She did not walk and she was totally blind from birth but she gained a little bit of sight overtime.

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:

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Number	Date	Cell Type	Delivery Method	Side Effects

1	2018-12-21	UCMSC	Intravenous Injection	none reported
2	2018-12-25	<u>UCMSC</u>	Intrathecal Injection	none reported
3	2018-12-25	UCMSC	Retrobulbar Injection	none reported
4	2018-12-28	UCMSC	Intravenous Injection	none reported
5	2018-12-28	UCMSC	Retrobulbar Injection	none reported
6	2020-01-02	UCMSC	Intrathecal Injection	none reported
7		UCMSC	Intravenous Injection	None

Condition 6 months after treatment

Condition 6 months after treatment: At the 6 month follow up point, Baylie's family mentioned: "Baylie can now see up to about 2 to 3 feet. She is starting to focus on things and look at them instead of feeling for them. Amazing improvement. Baylie has muscle tone improvement. She is definitely more active and her posture is way better." Please see an excerpt from the family's 6 month assessment below:

Symptom	Parents' Assessment of Improvement
Ability to focus eyes quickly	Moderate improvement
Ability to keep eyes focused for a long time	Small improvement
Ability to see hand movement	Significant improvement
Ability to see things at a close distance	Significant improvement
Ability to see things at a far distance	Moderate improvements
Ability to see things clearly	Moderate improvements
Able to count fingers	Significant improvement
Blindness	Significant improvement
Colour vision	Significant improvement
Light perception	Significant improvement
Night vision	Moderate improvements
Nystagmus	Moderate improvements

Strabismus	Small improvement
Vision in left eye	Significant improvement
Vision in right eye	Significant improvement
Visual field	Significant improvement