

# BEIKE BIOTECHNOLOGY

## Patient Case Study

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

Female, 10 years, March - March 2019

#### Summary

Diagnosis	Sex	Age	Nationality
Optic Nerve Hypoplasia (ONH) / Septo-optic Dysplasia (SOD)	Female	10 years	Brazilian
Injections	Cell type	Admission date	Discharge date
8	<a href="#">UCBSC</a>	March 11th 2019	March 28th 2019

#### Condition On Admission

The patient had light perception only. She had hormone deficiency (GH, thyroid, and cortisol) due to an atrophy in the pituitary gland.

#### Treatment Schedule

The patient received 8 umbilical cord blood-derived stem cell (UCBSC) packets by intravenous (IV), intrathecal and retrobulbar injections, as per the schedule below:

Number	Date	Cell Type	Delivery Method	Side Effects
1	2019-03-12	<a href="#">UCBSC</a>	<a href="#">Intravenous Injection</a>	none reported

Number	Date	Cell Type	Delivery Method	Side Effects
2	2019-03-15	<a href="#">UCBSC</a>	<a href="#">Intrathecal Injection</a> & <a href="#">Intravenous Injection</a>	none reported
3	2019-03-18	<a href="#">UCBSC</a>	<a href="#">Retrobulbar Injection</a> & <a href="#">Intrathecal Injection</a>	none reported
4	2019-03-22	<a href="#">UCBSC</a>	<a href="#">Retrobulbar Injection</a> & <a href="#">Intrathecal Injection</a>	none reported
5	2019-03-26	<a href="#">UCBSC</a>	<a href="#">Intravenous Injection</a>	none reported

## Condition at discharge

At discharge the patient already started to show some improvements; She could move her eyes following directions better than before. She could slowly move her eyes up and down and left and right. She could name the colors yellow, red, blue and purple by looking at colored lights (after she learned these colors). In addition, she could compare the size of shiny objects, finding out which ones were smaller or bigger and she could also identify their shapes.

## Condition 12 months after treatment

At the 12 month follow up point, the patient's parents reported that the patient's quality of life had moderately improved and that improvements were continually being made. They also mentioned: *"Before the treatment he only had light perception, today he is able to count on fingers."* Please see an excerpt from the patient's parents 12 month assessment below:

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

Blindness	Moderate improvement
Colour vision	Significant improvement
Light perception	Moderate improvement
Night vision	Significant improvement
Nystagmus	Moderate improvement
Strabismus	Small improvement
Vision in left eye	Moderate improvement
Vision in right eye	Moderate improvement
Visual field	Small improvement