

BEIKE BIOTECHNOLOGY

Patient Case Study

Macular Degeneration

Male, 58 years old, Nov - Dec 2010

Background

Age: 58 years old

Sex: Male

Nationality: Canadian

Date of Admission: November 1, 2010

Date of Discharge: December 3, 2010

Treatment Center: Chengyang People's Hospital, Qingdao, China

Diagnosis on Admission: Macular Degeneration

Condition On Admission

Patient was admitted with an 11 year history of deteriorating eyesight. On admission his visual acuity was 0.15 in his right eye and 0.3 in the left eye. The movement of his eyeballs was good, nystagmas was not present, pupils were round and of equal size, and light sensitivity was present. Presentation of symptoms was consistent with the diagnosis of macular degeneration. All other routine bloods, vital signs, and system checks were normal.

Treatment Schedule

Patient received 6 umbilical cord blood-derived stem cell (UCBSC) packets by intravenous (IV) injection, lumbar puncture (LP), and retrobulbar (RI-R)* injection as per schedule below:

Number	Date	Cell Type	Delivery Method	Side Effects
1	November 3, 2010	UCBSC	IV	none reported
2	November 8, 2010	UCBSC	LP	none reported
3	November 12, 2010	UCBSC	IV	none reported
4	November 17, 2010	UCBSC	RI-R	none reported
5	November 24, 2010	UCBSC	RI-R	none reported
6	November 26, 2010	UCBSC	IV	none reported

* Note: This injection was into the retrobulbar space of the right eye (RI-R)

Condition On Discharge

The doctors recorded an improvement in the patient's visual acuity and visual fields after treatment. Please see the results tables below:

Visual Acuity Results: Recorded by the Shandong Eye Institute

Eye	Nov. 2, 2010 Pre-treatment	Dec. 1, 2010 Post-treatment
Right Eye	0.15	0.2+
Left Eye	0.3	0.3+

Visual Field Results: Recorded by the Shandong Eye Institute

Eye	Visual Field Test	Nov. 2, 2010: Pre-Treatment	Dec. 1, 2010: Post-treatment
Right Eye	MD (mean deficit)	-4.96 dB	-1.12 dB
	PSD (Pattern Standard Deviation)	3.72 dB	1.80 dB
Left Eye	MD (mean deficit)	-5.29 dB	-3.96 dB
	PSD (Pattern Standard Deviation)	3.74 dB	2.78 dB

Follow Up Information

Condition 3 months after treatment: The patient reports that he is satisfied with the outcome at 3 months post-treatment. On the followup report he stated, "There has been some improvement in the eyes, I have no pain in my eyes, whereas I used to have pain all the time. My right eye has had the most improvement, coincidentally that was the eye that received the retrobulbar injection. I can now read with both eyes open. In the past I used to keep the right eye closed to read."

Please see the next page for a list of changes to various symptoms.

The table below shows the patient's response about improvements at 3 months post-treatment to a variety of symptoms.

Symptom	Parents' Assessment of Improvement
Blindness	Moderate improvement
Vision in left eye	No improvement
Vision in right eye	Significant improvement
Color vision	Moderate improvement
Night vision	Small improvement
Ability to focus eye quickly	Small improvement
Ability to keep eyes focused for a long time	Small improvement
Ability to see things at a close distance	Small improvement
Ability to see things at a far distance	Not Applicable
Pain in the eyes	Significant improvement

BEIKE BIOTECHNOLOGY CO., LTD.
9th Floor, Zhongke Building, 1 South Street
South Area, Shenzhen Hi-Tech Industrial Park
Shenzhen, China 518057

Tel: +86-755-8630-9277 Email: info@beikebiotech.com
Fax: +86-755-8630-9309 Web: www.beikebiotech.com

