

BEIKE BIOTECHNOLOGY

Patient Case Study

Liver Cirrhosis

Male, 56 years old, December 2011

Background

Age: 56 years old

Sex: Male

Nationality: Polish

Date of Admission: December 7, 2011

Date of Discharge: December 27, 2011

Treatment Center: Bethune International Peace Hospital, Shijiazhuang, China

Diagnosis on Admission: Liver Cirrhosis

Condition On Admission

Patient had a history of hepatic pain and declining liver function during the previous three years. His own local specialist reported that the cause of his liver cirrhosis is idiopathic, or as a possible consequence of nonalcoholic fatty liver, further complicated by mechanical jaundice in the course of acute necrotizing cholecystitis with deferred surgery.

On admission to the hospital all vital signs were stable. The patient had no fever and neurological, heart, and lung examinations showed no other abnormalities. Results of the patient's pre-treatment blood test can be seen in the blood test results table on the next page.

Treatment Schedule

Patient received 7 umbilical cord blood-derived stem cell (UCBSC) packets by intravenous injection (IV) and interventional injection (II) directly into the hepatic artery as per schedule below:

Number	Date	Cell Type	Delivery Method	Side Effects
1	December 9, 2011	UCBSC	IV	none reported
2	December 12, 2011	UCBSC	IV	none reported
3	December 13, 2011	UCBSC	II	none reported
4	December 16, 2011	UCBSC	IV	none reported
5	December 19, 2011	UCBSC	IV	none reported
6	December 21, 2011	UCBSC	IV	none reported
7	December 23, 2011	UCBSC	IV	none reported

Condition On Discharge

Following his stem cell treatment the patient had no fever, headache, or other side effects. There was no clinically measurable improvement in his condition during or directly after his treatment, except for a small improvement in his liver enzyme ALB which climbed closer to the normal range after treatment. The doctors did observe that the patient had much more energy and had seemed to improve emotionally.

Follow Up Information

Condition 1 month after treatment: The patient submitted his follow up assessment one month following treatment. He had experienced good improvements in many symptoms associated with his liver cirrhosis and reported that his quality of life had improve.

Please see the excerpt below from their one month post-treatment assessment:

Symptom	Parents' Assessment of Improvement
Fatigue	Small improvement
Weight loss	Moderate improvement
Eye yellowness	Significant improvement
Skin yellowness	Significant improvement
Ascites	Moderate improvement
Easy bruising	Small improvement
Skin itching	Significant improvement
Loss of appetite	Significant improvement
Spider angioma	Moderate improvement
Nausea	Significant improvement
Diarrhea	Significant improvement

Pre and post-treatment blood test results can be viewed on the next page.

Related Test Reports

The following are results of blood tests taken pre-treatment, post-treatment, and one month after. The name of the tested enzyme and its normal range is on the left of the table. ALB steadily improved and approached a normal range by one month after treatment, while PTA reached a normal range at the same time point. ALT and PTT continued to be in the normal ranges during and after treatment.

Tested Enzyme (Normal Range)	Pre-Treatment December 7, 2011	Post-Treatment December 23, 2011	One Month Follow Up January 30, 2012
ALT (0-45U/L)	23 U/L	24 U/L	21.6 U/L
ALB (40-50g/L)	31.5 U/L	35.3 U/L	37.7 U/L
PTT (21.9-41.2sec)	26.6 sec	---	35.1 sec
PTA (75-120%)	70.6%	---	79.2%

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