BEIKE BIOTECHNOLOGY

Patient Case Study

Cerebral Palsy

Male, 3 years, February - March 2022

Summary

Diagnosis	Sex	Age	Nationality
Cerebral Palsy	Male	3 years	Latvia
Injections	**Cell type**	**Admission date**	**Discharge date**
8	UCMSC	February 23rd 2022	March 17th 2022

Medical history

The patient was diagnosed with cerebral palsy (tetraperesis) following herpes meningoencephalitis. MRI scans revealed severe brain damage on the right side and minor damage on the left. Currently six months old, he exhibits relatively normal development, albeit with weaker left arm movement and slower mobility compared to peers. Physiotherapies and massages, along with home exercises, constitute his treatment regimen. Medications include phenobarbital, acyclovir for herpes, and depakine syrup to prevent seizures, as per EEG recommendations. His mother's herpes infection during pregnancy and subsequent outbreak during childbirth were noted as relevant medical history.

Condition On Admission

The patient demonstrates limited speech and slower motor skills, though he can roll over, hold his head up, and grasp objects with his right arm. There have been no reported allergies, abnormal bowel movements, or other significant gastrointestinal issues. Despite the herpes infection history, no communicable illnesses are present. Notably, there's no epilepsy/seizures recorded thus far. With no major surgeries, bedsores, ulcers, or respiratory complications, the patient's current condition primarily

centers around managing cerebral palsy and monitoring his developmental progress.

Treatment Schedule

Patient received 8 packs of umbilical cord derived stem cell (UCMSC) by intravenous (IV) injection and intrathecal injection via lumbar puncture (LP), as per the schedule below:

Number	Date	Cell Type	Delivery Method	Side Effects
1	2023-03-07	UCMSC	Intrathecal Injection & Intravenous Injection	none reported
2	2023-03-10	UCMSC	Intrathecal Injection & Intravenous Injection	none reported
3	2023-03-14	UCMSC	Intrathecal Injection & Intravenous Injection	none reported
4	2023-03-17	UCMSC	Intrathecal Injection	none reported
5	2023-03-12	UCMSC	Intrathecal Injection	none reported

Condition 12 months after treatment

The patient's progress post-treatment shows notable improvements in several areas, particularly in speech development and motor skills. Despite initial concerns, the patient has demonstrated progress in verbal communication, attempting two to three-word sentences and actively engaging in speech repetition. Additionally, advancements in physical activities such as puzzle-solving, Lego play, and learning to use bicycle pedals reflect improvements in motor coordination. The patient's participation in kindergarten with specialized attention and therapy sessions further supports his developmental progress.

Symptom	Parents' Assessment of Improvement
Balance	**Small improvement**
Learning disability	Small improvement
Mood disorder	Small improvement
Standing up	Small improvement
Language functions	Mostly able to do

Symptom	Parents' Assessment of Improvement
Own actions	Able to do
Physical functions	Able to do
Recognize functions	Mostly able to do
Social adaptability	Mostly able to do

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