

Stem Cell Therapy Modulates Cerebral Palsy: Case Report

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Abstract

A case of 9 years old Iraqi girl who had a moderate level of spastic cerebral palsy plus scissoring gait came to Al Zahrawy Center for Stem Cells in Baghdad in 2016. After proving diagnosis, the parents took their girl to distinctive pediatrics, orthopedics, physiotherapists, and neurologists. After a comprehensive check, we discussed the use of stem cells, the parents accepted and verbally consented. Later, after four sequential months of one injection per month of stem cells injections, the parents noticed gradual advancement of the mentioned girl state. Stem cell therapy modulates cerebral palsy, so we recommended it.

Key words: stem cells; cerebral palsy; treatment; case report

INTRODUCTION

The well-known dictionary (Merriam-Webster Dictionary) (<https://www.merriam-webster.com>) defined the word cerebral in various ways as 1 i: linking to the brain.

1 ii: linking to the cerebrum.

2 i: appealing to intellectual appreciation, cerebral.

2 ii: primarily intellectual.

Palsy denotes weakness or troubles in utilizing the muscles. In medical terms, Cerebral palsy is a set of illnesses that charm an individual's movements, balance, or posture. Notwithstanding, it is a frequent motor disorder of childhood. Cerebral palsy impacted the child's brain before, even during, or momentarily after birth. Moreover, there are many causalities of this brain harm. Accordingly, it could be congenital brain damage (85%–90%), but, in numerous circumstances, the straightforward reason is obscure. Consequently, the risk elements of cerebral palsy enclose bleeding in the neonate's brain, temporary brain asphyxia in the difficult birth, or even an unexpected head injury. Further, low birth weight, premature birth, Multiple births, infertility treatments, high fever in the mother during pregnancy or delivery, brain infections, Jaundice, Mothers had thyroid troubles, birth difficulties like detachment of the placenta or uterine rupture.

From it is known, the scientists categorize Cerebral Palsy according to the movement involved, manifestation, and the impacted site in the brain. Hence, at present, there are four prominent styles: spastic palsy, dyskinetic palsy, ataxic palsy, and mixed palsy. Well, the parent's concern varies according to the type of palsy, baby age, disease severity, and parent's troubles. But, the

distinctive features of cerebral palsy incorporate developmental delays in milestones, abnormal muscle tone, or abnormal posture. Notwithstanding, abnormal muscles tone is the most repeatedly seen. Ordinarily, the most common presentation of cerebral palsy in infancy includes abnormal baby movement with excessive reflexes, spasticity or floppiness of the body, distinctive pose, involuntary movements, plus wobbly walking [1].

Yet, the affected children live an expected average survival duration relative to the general population, although Cerebral palsy is a challenging situation for the patient and his family. However, mild palsy might reach 30-60 years old, whereas patients with severe palsy might live up to 30 years [2]. Accordingly, the shorter life spans correspond to the disease severity, general care, family support, absence of the mother, family economy, and house hygiene.

In this paper, we present a case of an Iraqi girl who showed good improvement after stem cells remedy. To the best of the authors' search, this is the first case that expresses this success in Iraq.

Case Report:

A case of 9 years old Iraqi girl who had a moderate level of spastic cerebral palsy plus scissoring gait came to Al Zahrawy Center for Stem Cells in Baghdad in 2016 February. After proving the diagnosis, the parents took their girl to distinctive pediatrics, orthopedics, physiotherapists, and neurologists in various teaching hospitals over different countries.

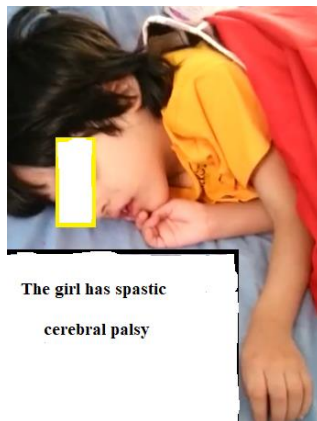


Figure 1: The girl had spastic cerebral palsy.

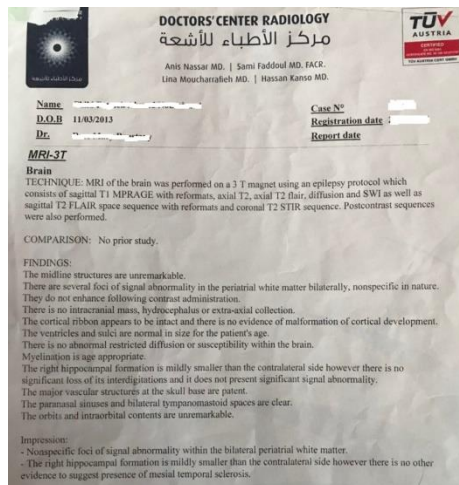


Figure 2: The MRI report of the girl's brain.

There is no advancement in her intellectual, ophthalmologic, walking, motor, and milestone. After a comprehensive check, we discussed the use of stem cells, the parents accepted and verbally consented.

Ordinarily, Dr. Ahmad Alkhyaat aseptically aspirated the bone marrow from this girl's right hip under local anesthesia plus general sedation, then processed it in highly qualified laboratory tools.

Later, after four sequential months of one injection per month of stem cells injections, the parents noticed gradual advancement of the mentioned girl state. They recorded her progress in a video with acknowledgments. So, stem cells could modulate cerebral palsy treatment.



Figure 3: Three pictures of this girl four months after stem cell therapy.

Discussion:

From its comprehension, the scientists desire to prevent and cure cerebral palsy. Moreover, physicians classify palsy manifestations and use different remedies to stop the disease process or modulate its troubles. In this paper, we present a case of an Iraqi girl who showed good improvement after stem cells remedy. To the best of the authors' search, this is the first case that expresses this success in Iraq.

There are miscellaneous papers worldwide concerning stem cell use in cerebral palsy patients. Accordingly, the old study document about stem cells in cerebral palsy, as the authors search in Google Scholar, backed to 2003. Thus, the physicians ascertained the effective results of stem cells to modify the troublesome of cerebral palsy. Similarly, Dr. Ahmad Alkhyaat, the manager of Al Zahrawy Center for Stem Cells in Baghdad, applied stem cell therapy in different diseases with verified success since 2013 [3] [4] Unfortunately, there is no advancement in this girl's intellectual, ophthalmologic, walking, motor, and milestone. Moreover, this is an expected disease process of cerebral palsy because the principal and common problem in all types of cerebral palsy is brain damage. So, the doctors classify it according to its palsy severity into Mild, Moderate, and Severe, but this categorization did not add additional specific information. But, the other disease classification of clinical severity abilities into gross motor function, communication, and manual ability. Hence, Severe palsy is the most profound state impacting patient movements, sensory skills, and cognitive skills. So, the patient with severe form might not walk, could not rely on himself, with intense intellectual disabilities, and might require special physiotherapy equipment [5].

Subsequently, after four consecutive months of follow-up, Dr. Ahmad Alkhyaat injected this paralyzed girl a single shot monthly of autologous stem cells injections under her parent's care and approval. Fortunately, the parents saw the meaningful incremental betterment of their girl's health condition.

Happily, scientists employ stem cells therapy as a satisfactory restorative remedy and potential treatment for cerebral palsy. Hence, numerous studies confirmed that and recommended this contemporary evolving restoration treatment. However, the patient parents are optional in their decision to acquire it on their patient. Yet, stem cell tourism is a growing treatment in developed countries, supported by clear medical laws [6].

Hence, their satisfaction and acknowledgment were evident in which they recorded her progress in a video with thanks.

Conclusion

Stem cell therapy modulates cerebral palsy, so we recommended it.

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