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CASE REPORT

"Revolutionizing Amyotrophic Lateral Sclerosis (ALS) Management: A Case Report on Muscle Regeneration and Sustained Relaxation through Placental Injection Therapy at Rodem Hospital"

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ABSTRACT

This case report from the Rodem Hospital introduces a pioneering intervention for muscle rigidity in Amyotrophic Lateral Sclerosis (ALS), featuring a unique placental extract injection and glucose injection therapy combined with lidocaine. This novel approach has demonstrated significant muscle regeneration and sustained relaxation in 47 ALS patients. Unlike traditional treatments, this protocol offers a more sustainable and regenerative outcome. The treatment involved injections of a mixture containing glucose, lidocaine, and placental extract, targeting severely rigid muscles. Remarkably, 42 of the 47 patients showed considerable improvements in knee flexion and a dramatic reduction in pain. The other two also experienced notable progress. This method stands out for its cost efficiency, impact on muscle suppleness, and reduced pain, suggesting a potential paradigm shift in ALS management. This case series highlights the importance of continued innovation and personalized treatment strategies in ALS care, aiming to improve patient quality of life and functional abilities.

Keywords: Amyotrophic Lateral Sclerosis, muscle regeneration, relaxation, placental injection.

1. Introduction

Amyotrophic Lateral Sclerosis (ALS) [1] is a progressive neurodegenerative disease characterized by increasing muscle rigidity, leading to significant functional impairment and diminished quality of life traditional management strategies primarily focus on symptomatic relief[2–4], utilizing oral muscle relaxants and physical therapy[5]. However, these approaches offer only temporary respite, failing to address the underlying progression of muscle rigidity and its debilitating impact on patients.

In this context, the Rodem Hospital has pioneered a novel treatment protocol, presenting a significant leap in ALS care. The approach integrates a unique placental extracts and glucose injection therapy, combined with lidocaine solution, aiming to not just alleviate symptoms but to foster muscle regeneration and sustained relaxation. This innovative method, diverging from the transient benefits of standard treatments, opens new avenues in ALS management by potentially reversing the muscle rigidity progression.

The Rodem Hospital's protocol is designed to cater to the diverse nature of ALS progression among patients, as evidenced by varying ALS Functional Rating Scale scores and degrees of disease severity. The treatment's personalized nature, targeting specific muscle areas with a carefully formulated injection mixture, underscores the hospital's commitment to providing tailored care. This approach not only offers immediate symptomatic relief but also explores the potential for long-term improvement in muscle function, a notable advancement in the field of ALS treatment.

2. Case Presentation:

This case series at our institution involved 47 patients diagnosed with Amyotrophic Lateral Sclerosis (ALS), each presenting a unique progression with severe muscle rigidity of the disease. The time since diagnosis varied widely among the patients, ranging from 3 to 54 months, reflecting the diverse nature of ALS progression. The ALS Functional Rating Scale (ALSFRS) scores[6] in this patient cohort also varied, ranging from as low as 10 to as high as 42. This broad spectrum of scores highlighted the varying degrees of disease severity, including several cases where patients were dependent on mechanical ventilation. Motor grades in these patients ranged from 1 to 4, indicating a wide disparity in muscle strength and control. This variability was significant, as it underscored the complex nature of ALS and the challenges it poses in managing muscle rigidity and maintaining functional mobility.

3. Injection Sites and Methodology

In the treatment protocol implemented at Rodem Hospital for ALS patients, a standardized method was employed for the administration of the injection therapy. The primary injection sites included the thigh muscles, specifically targeting the adductor muscles and the muscles surrounding the hip joint. Additionally, the popliteal fossa area, encompassing the surrounding ligaments and muscles, was also a focal point for injections. Each injection involved administering 1 to 3cc of the therapeutic mixture at these key locations. For areas like the ankle joint, a specific approach was adopted. Injections were administered at the medial ankle joint, targeting the areas around the talocrural and

subtalar joints to effectively manage muscle rigidity.

DOSAGE AND APPLICATION

In response to these challenges, our institution implemented an innovative placental injection therapy protocol. The treatment regime was carefully designed to address the muscle rigidity that is so debilitating in ALS patients. The protocol involved a unique mixture for injection, comprising 20% glucose solution (4cc), 2% lidocaine solution (1cc), and placental extract (2cc). This mixture was administered on a weekly basis, targeting the most affected muscle areas – primarily the thighs, calves, knee joints, hip joints, and ankle joints. During each treatment session, approximately 3-5cc of the mixture was injected into 4-5 sites per muscle area, focusing on those exhibiting the highest degree of rigidity.

The once average dosage used per patient ranged from 5cc to 20cc, focusing primarily on the lower extremities to alleviate muscle rigidity. This concentration on the lower body was crucial in managing the prevalent muscular stiffness in ALS patients. However, the treatment was versatile enough to be adapted to individual needs. In certain cases, injections were also administered to the muscles around the neck, depending on the patient's specific symptoms and the progression of muscle rigidity.

This standardized methodology in the injection therapy was instrumental in ensuring a consistent approach across all patients, while also allowing for necessary personalization based on individual patient conditions and responses to treatment. The simplicity of the protocol belied its potential impact. The choice of components for the injection– glucose for energy, lidocaine for local anesthetic effect, and placental extract for its regenerative properties – was based on a hypothesis that this combination could not only alleviate the symptoms of muscle rigidity but also promote muscle health and possibly regeneration.

The goal of this treatment was twofold: to provide immediate relief from the discomfort and limitations caused by muscle rigidity and to explore the potential for longer-term improvement in muscle function. By adopting this innovative approach, our institution aimed to move beyond the limitations of traditional ALS treatments, which often provide only temporary relief and fail to address the underlying progression of muscle rigidity.

OUTCOMES:

The treatment outcomes for the 47 ALS patients who underwent placental injection therapy were notably positive. The therapy was administered weekly for a duration ranging from 4 to 12 weeks, with patients receiving between 4 to 15 injection sessions in total. Remarkably, 45 out of the 47 patients showed significant improvements in knee flexion, achieving over 90 degrees of movement with minimal stimulation—a substantial improvement from their initial state of severe rigidity. Additionally, these patients experienced a dramatic reduction in pain, with Visual Analogue Scale (VAS) pain scores decreasing from high levels of 8-9 to just 1-2.

Furthermore, there were notable improvements in ankle joint mobility and neck movement flexibility. Patients demonstrated enhanced range of motion, with most achieving greater flexibility and reduced

stiffness in these areas. This quantitative improvement in joint mobility was a significant indicator of the therapy's effectiveness.

The remaining two patients, despite not achieving the same level of improvement as the majority, still showed notable progress. With moderate stimulation, they were able to achieve more than 45 degrees of knee and hip flexion, a significant development from their previous condition. Additionally, their VAS pain scores improved to 3-4, indicating a considerable reduction in pain intensity.

These outcomes demonstrate the efficacy of the placental injection therapy in significantly enhancing joint mobility and reducing pain among ALS patients. The majority of the cohort experienced major improvements, suggesting that this innovative treatment could be a game-changer in managing muscle rigidity associated with ALS. The enhanced mobility in knee, ankle, and neck joints, coupled with significant pain reduction, underscores the potential of this treatment in improving the overall quality of life for ALS patients.

4. Discussion:

Symptomatic management[2–4] in Amyotrophic Lateral Sclerosis (ALS) plays a crucial role in enhancing the quality of life and influencing the prognosis of patients. Effective management of symptoms, such as muscle rigidity, can significantly impact patient comfort and daily functioning. The comprehensive care, including both physical[5] and psychological support[7,8], is essential for maintaining the highest possible quality of life for ALS patients.

The innovative treatment protocol at Rodem Hospital for managing muscle rigidity in ALS significantly contrasts with traditional muscle relaxation therapies. Conventional treatments, such as botulinum toxin injections[9,10] and oral muscle relaxants[11,12], have long been the mainstay in this field. However, while botulinum toxin injections offer targeted relief, their effects are transient and frequently incur high costs. Similarly, intrathecal baclofen therapy[13], another common approach, involves the surgical insertion of a pump to deliver baclofen directly to the spinal fluid.

Furthermore, the treatment of muscle rigidity in ALS has traditionally included various drugs, procedures, physical therapies, and alternative methods. Yet, the placental injection therapy developed at Rodem Hospital stands out in terms of cost efficiency and its impact on enhancing muscle suppleness, reducing rigidity, and alleviating pain. This novel method has significantly improved the quality of life for patients, offering an alternative that is both economical and effective. The observed regenerative effects and sustained muscle relaxation with minimal oral diazepam in treated patients suggest a multifaceted impact, surpassing the capabilities of traditional methods[9–12,14,15].

In contrast, the placental injection therapy protocol at Rodem Hospital, which incorporates extracts from Zaha (a Korean placental extract), represents a novel approach. Traditionally, placental injections have been predominantly used for liver function improvement and in managing menopausal symptoms. However, the diverse cytokines and interleukins (ILs) present in these extracts, typically associated with regenerative medicine[16], are now being explored for their potential in ALS treatment.

These components are thought to facilitate a remodeling process similar to the paracrine effects observed in stem cell therapy, offering hope for muscle regeneration and sustained relaxation in ALS patients.

Moreover, the periodic use of placental injection therapy has shown additional benefits, particularly in ALS patients who often struggle with weight maintenance due to muscle atrophy and other disease-related factors[16–21]. Although further research is necessary to fully understand and validate these outcomes, the preliminary results from Rodem Hospital's protocol indicate a potential paradigm shift in the management of muscle rigidity in ALS.

During the placental injection therapy at Rodem Hospital, another interesting observation was made. There was an increase in thigh muscle volume at the sites where the injections were administered. Although not everyone but someone(17 patients) increase in muscle volume, this suggests a potential increase in muscle mass, an important development in ALS where muscle atrophy is common. To quantify this increase, we are considering additional methods like circumferential limb measurements and Bioelectrical Impedance Analysis (BIA)[22] using tools like InBody.

The periodic use of placental injection therapy has shown additional benefits, particularly in ALS patients struggling with weight maintenance due to muscle atrophy and other disease-related factor[20,23–26]s. Although further research is necessary, preliminary results from Rodem Hospital's protocol indicate a potential paradigm shift in managing muscle rigidity in ALS.

Placenta extract therapy's similarity to stem cell treatments[20,23–26], particularly in paracrine effects, is an intriguing aspect. While various stem cell therapies are being developed, they often come with high costs and complex procedures. In contrast, placenta extract therapy offers a more straightforward, affordable approach to harnessing paracrine-like effects, making it an appealing option in regenerative medicine.

5. Conclusion:

In conclusion, the innovative placental injection therapy protocol implemented at Rodem Hospital represents a significant advance in the treatment of Amyotrophic Lateral Sclerosis (ALS). This study has demonstrated that placental injections, traditionally used for liver function improvement and menopausal symptom management, have potential therapeutic effects in ALS, particularly in muscle relaxation and regeneration. The presence of various cytokines and interleukins in the placental extract suggests a mechanism similar to the paracrine effects of stem cell therapy, contributing to muscle tissue remodeling and improved functionality.

Furthermore, the additional benefits of this therapy, such as aiding in weight gain for ALS patients, underline its multifaceted impact. These findings indicate that placental injection therapy not only addresses the symptomatic aspects of ALS but also contributes to the overall well-being of patients, potentially enhancing their quality of life and functional abilities.

While these preliminary results are promising, further research is essential to fully understand

and validate the long-term effects and efficacy of this treatment. The exploration of placental injection therapy in ALS marks a potential paradigm shift in managing muscle rigidity associated with the disease, offering a more holistic and patient-centric approach. This study lays the groundwork for future investigations and clinical trials, aiming to solidify the role of placental injection therapy in ALS management and potentially other neurodegenerative disorders.

Conflicts of Interest Statement:

None

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