

Acupressure Intervention In Becker's Leg Muscular Dystrophy: A Case Study Of Successful Recovery And Functional Improvement

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Citation: Pardeep Kumar, Dr. Ajay Pal, (2024), Acupressure Intervention In Becker's Leg Muscular Dystrophy: A Case Study Of Successful Recovery And Functional Improvement, *Educational Administration: Theory and Practice*, 30(2), 923-930

Doi: 10.53555/kuey.v30i2.3025

ARTICLE INFO

Received: 15 -November

Revised: 20- December

Accepted: 19 -January

ABSTRACT

Objective: The objective of this study is to investigate the efficacy of acupressure intervention in the management of Becker's leg muscular dystrophy. The study aims to explore whether acupressure can lead to successful recovery and functional improvement in individuals diagnosed with Becker's leg muscular dystrophy.

Aim: The aim of this research is to evaluate the effectiveness of acupressure as a therapeutic intervention for individuals with Becker's leg muscular dystrophy. Specifically, the study aims to assess the impact of acupressure on muscle strength, flexibility, and overall functional ability in affected individuals.

Method: This study will utilize a case study approach to examine the effects of acupressure intervention in individuals diagnosed with Becker's leg muscular dystrophy. A detailed assessment of the participant's medical history, including previous treatments and disease progression, will be conducted. Acupressure treatment will be administered by a qualified practitioner following a predetermined protocol tailored to the individual's needs. The intervention will be monitored over a specified period, during which changes in muscle strength, flexibility, and functional ability will be assessed using standardized measures such as manual muscle testing and functional mobility assessments. Additionally, qualitative data regarding the participant's subjective experiences and perceptions of acupressure treatment will be collected through interview of the affected individual.

Result: The results of this case study will provide insights into the efficacy of acupressure intervention in individuals with Becker's leg muscular dystrophy. Quantitative assessments will evaluate improvements in muscle strength, flexibility, and functional ability following acupressure treatment. Qualitative data will offer additional perspectives on the participant's experiences with acupressure and its perceived impact on their condition. Overall, the findings of this study aim to contribute to the growing body of evidence supporting the use of complementary therapies such as acupressure in the management of muscular dystrophy, with implications for improving the quality of life and functional outcomes in affected individuals.

Keywords: Acupressure intervention, Becker's muscular dystrophy, Case study, Recovery, Functional improvement.

Introduction

Progressive muscular weakness coupled with deformities can result from a variety of musculoskeletal and neurological disorders. Sometimes, distinguishing between primary muscle diseases and neurological conditions can be challenging [1]. However, certain muscle diseases exhibit distinct clinical presentations that

allow for differentiation, particularly from spinal cord and motor neuron diseases. One such disorder is muscular dystrophy, which encompasses a group of genetic muscle conditions characterized by progressive weakness [2]. Muscular dystrophy affects various bodily systems, including the skeletal, cardiovascular, gastrointestinal, and nervous systems, as well as other organs [3]. Duchenne muscular dystrophy (DMD), for example, follows an X-linked recessive pattern of inheritance, meaning the mutated gene responsible for the disorder is located on the X chromosome. Consequently, males are predominantly affected, as they inherit one X chromosome from their mothers. Fathers, lacking two X chromosomes, cannot pass on X-linked traits to their sons [4]. Both Duchenne muscular dystrophy and Becker muscular dystrophy stem from mutations in the dystrophin gene, leading to an excess of creatine kinase enzyme. Notably, the dystrophin gene holds the distinction of being the largest gene in humans [5]. This case series delves in a youth of Gujrat India with no family history. Afflicted by backer's leg muscular dystrophy. This case study provides a new direction of dealing with this problem. Also provide the solution for the problem with the help of magnetic acupressure and provide a deep insight and permanent solution for the problem.

Acupressure

Acupressure, an ancient healing science, derives its name from the combination of "Acu" and "Pressure," where "Acu" refers to pinpointed or directed, and "Pressure" denotes the gentle pressure applied to specific locations on the body. In essence, acupressure involves the application of gentle pressure to specific points or defined locations on the body for therapeutic purposes [6]. The methodology of acupressure operates on the principles of meridians, which are energy pathways in the body. Acupressure employs various techniques for healing, including pressure with fingers, blunt objects, auricular seeds, regular seeds, magnets, and needling [7]. These approaches constitute non-invasive methods, distinct from acupuncture. This case study focuses specifically on the non-invasive meridian system approach. The meridian system commonly referred to as the Traditional Chinese Meridian, comprises 14 meridians, with 12 main ones [8]. Similarly, Ayurvedic acupressure also relies on a meridian system, albeit with differences from the Traditional Chinese Medicine (TCM) system. In Ayurveda, the meridian system is entirely non-invasive, involving the application of small byol-magnets by a practitioner using doctor tape or surgical tape [9].

The Ayurvedic meridian system primarily encompasses four meridian systems:

1. Vertical Meridian System (VM)
2. Horizontal Meridian System (HM)
3. Spiral Meridian System (SPM)
4. Yogic Yam-Niyam Meridian System (YNM)

Each of these systems plays a crucial role in Ayurvedic acupressure, offering a holistic approach to healing. By understanding and applying the principles of these meridian systems, practitioners aim to restore balance and harmony to the body's energy flow, thereby promoting overall health and well-being. Through this case study, we delve into the efficacy of non-invasive meridian system approaches, particularly in the context of managing Becker's leg muscular dystrophy, to explore their potential for successful recovery and functional improvement. The 10-element theory of Ayurvedic acupressure posits that each finger contains 10 vertical and 10 horizontal meridians, with each meridian housing 10 elemental points of treatment. These points correspond to specific elements, forming the basis of a 5+5 elemental framework: five physical (akash, vayu, agni, jal, prithvi) and five metaphysical (tam, kaal, disha, mann, atma) [10]. In this framework, the sequence of elements progresses from Tam (representing origin) to Atma (symbolizing universal power, akin to Tesla's fascination with the numbers 3, 6, and 9). Each finger's phalanges are divided horizontally into ten points, with zero at the center, four toward the thumb, and one between zero and four. Similarly, three is positioned opposite four, with two between them. On the back of the phalange, nine is at the center, five toward the thumb, and eight on the outermost side, with six between eight and nine, and seven between six and nine. Vertical meridians reset the base number to zero, so for instance, when considering VM 4 located on the proximal phalange towards the thumb, four is treated as zero, with three on the middle phalange, six on the distal phalange, and nine at the tip. Points one and two are situated between three, while four and five are between three and six, and seven and eight between six and nine. Image 1&2 shows location of ten element of VM (vertical meridian) and image 3&4 shows HM of ten elements. In this particular case study, the focus is on the Long Horizontal Meridian (LHM), a significant component within the framework of Ayurvedic acupressure [11]. Specifically, five predetermined combinations of the LHM are employed: LHM 1/2, 3/4, 0/9, 7/8, and 5/6. It's important to note that these combinations are standardized within the practice of Ayurvedic acupressure, implying a fix set of configurations. Deviation from these established combinations is not permissible within this theoretical framework.

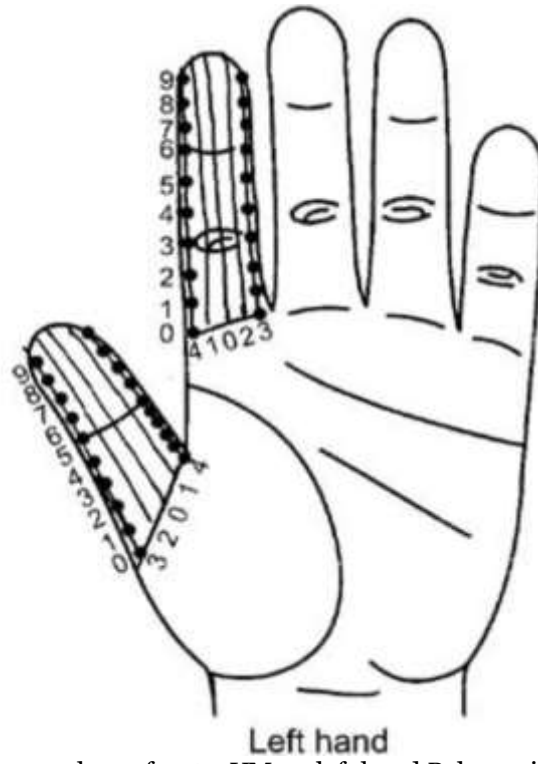


Image 1 shows front 5 VM on left hand Palmer side

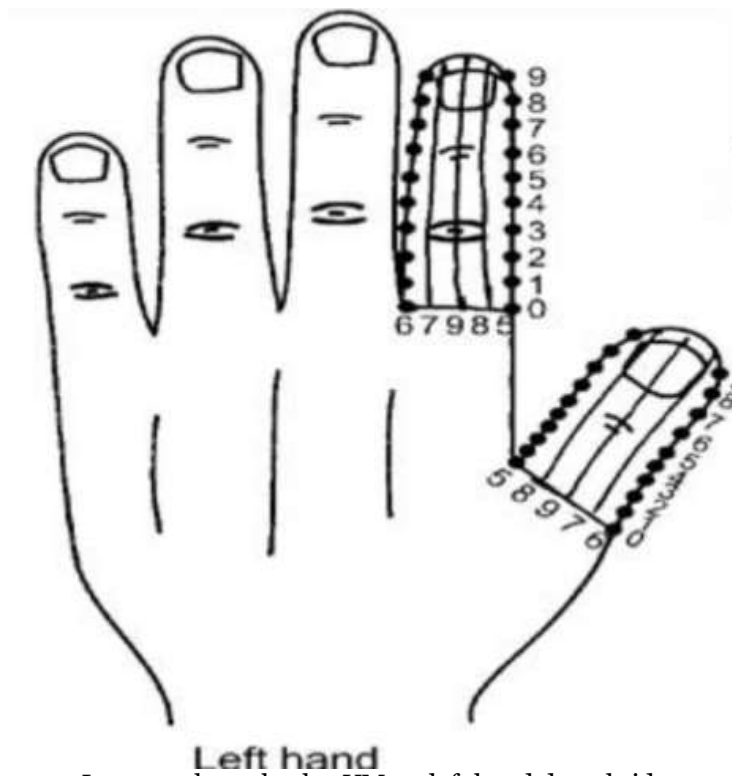


Image 2 shows back 5 VM on left hand dorsal side

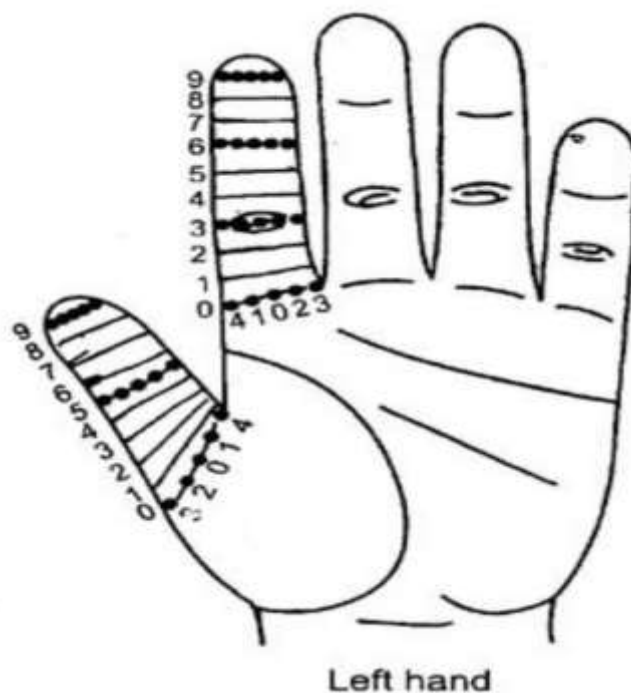


Image 3 shows front 5 HM on left hand palmer side

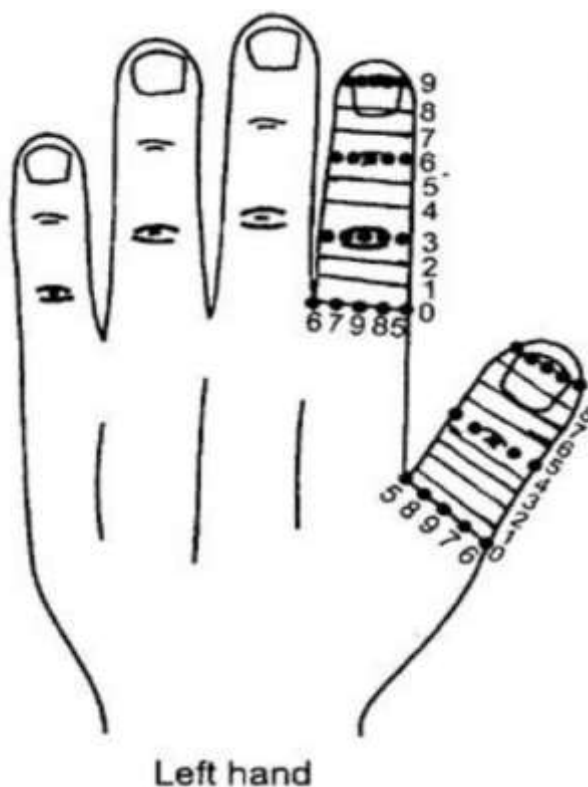


Image 4 shows back 5 HM on left hand dorsal side

Methodology:

This study enrolled a single participant, aged 29 years, diagnosed with Becker's leg muscular dystrophy affecting both lower limbs on September 10, 2011, as determined by the Allopathy system. The participant exhibited an inability to walk or stand unassisted, coupled with progressive weight loss. Allopathic medicine offered no permanent solution, instead emphasizing supportive care. Subsequently, upon learning about magnetic acupressure healing, the participant sought treatment at the Acupressure Treatment and Training Centre in Surat, Gujarat, India. The centre's head therapist, proficient in acupressure techniques, informed the patient that while they had not previously treated a similar case, the non-invasive nature of the treatment

carried no risk of adverse effects. With the patient's consent, the Ayurvedic acupressure treatment commenced on September 10, 2011.

Protocol Application: Treatment Protocol for Acupressure Therapy

The treatment protocol described herein outlines the application of acupressure therapy utilizing small magnets for individuals diagnosed with Becker's leg muscular dystrophy. The protocol aims to address muscular dysfunction and promote healing through targeted stimulation of specific acupoints along the Long Horizontal Meridian (LHM) of the index fingers.

Treatment Procedure:

1. Magnet Selection:

- Small magnets with distinct colours representing the north and south poles are utilized for treatment. The north pole is painted white, while the south pole is painted yellow.
- White colour indicates tonification, denoted by an upward arrow (↑), whereas yellow colour indicates sedation, denoted by a downward arrow (↓).

2. Acupoint Selection: All LHM points on both index fingers are targeted for treatment, focusing on addressing the symptoms of Becker's leg muscular dystrophy.

3. Treatment Protocol: The prescribed treatment protocol is denoted as follows:

FNO 3,4 - LHM 1/2,3/4,0/9,7/8,5/6 - 3,6,8,9 ↓ 0,1,4,5 ↑ - BYOL MAGNET / NF / HAND "FNO 3,4" signifies the selection of index fingers on the left hand (FNO 3) and right hand (FNO 4).

"LHM 1/2,3/4,0/9,7/8,5/6" indicates the specific LHM combinations targeted for treatment on both index fingers.

"3,6,8,9 ↓ 0,1,4,5 ↑" delineates the application of sedation (↓) or tonification (↑) at each designated acupoint.

"BYOL MAGNET / NF / HAND" specifies the use of small magnets painted with the respective colours (white for tonification, yellow for sedation) and their placement on the left (NF) and right (NF) hand index fingers.

4. Protocol Application

The therapist follows the prescribed protocol meticulously, ensuring accurate placement of magnets according to the designated acupoints and color-coded indications. Each treatment session adheres to the specified protocol, facilitating consistency and reproducibility in therapeutic interventions. The outlined treatment protocol provides a systematic approach to acupressure therapy for individuals with Becker's leg muscular dystrophy. By targeting specific acupoints along the LHM [12] of the index fingers and employing magnet therapy with distinct tonification and sedation properties, the protocol aims to alleviate symptoms and promote healing. Adherence to the prescribed protocol ensures standardized treatment delivery, enhancing efficacy and reproducibility across treatment sessions. Image 5 shows the applied protocol on both hands.

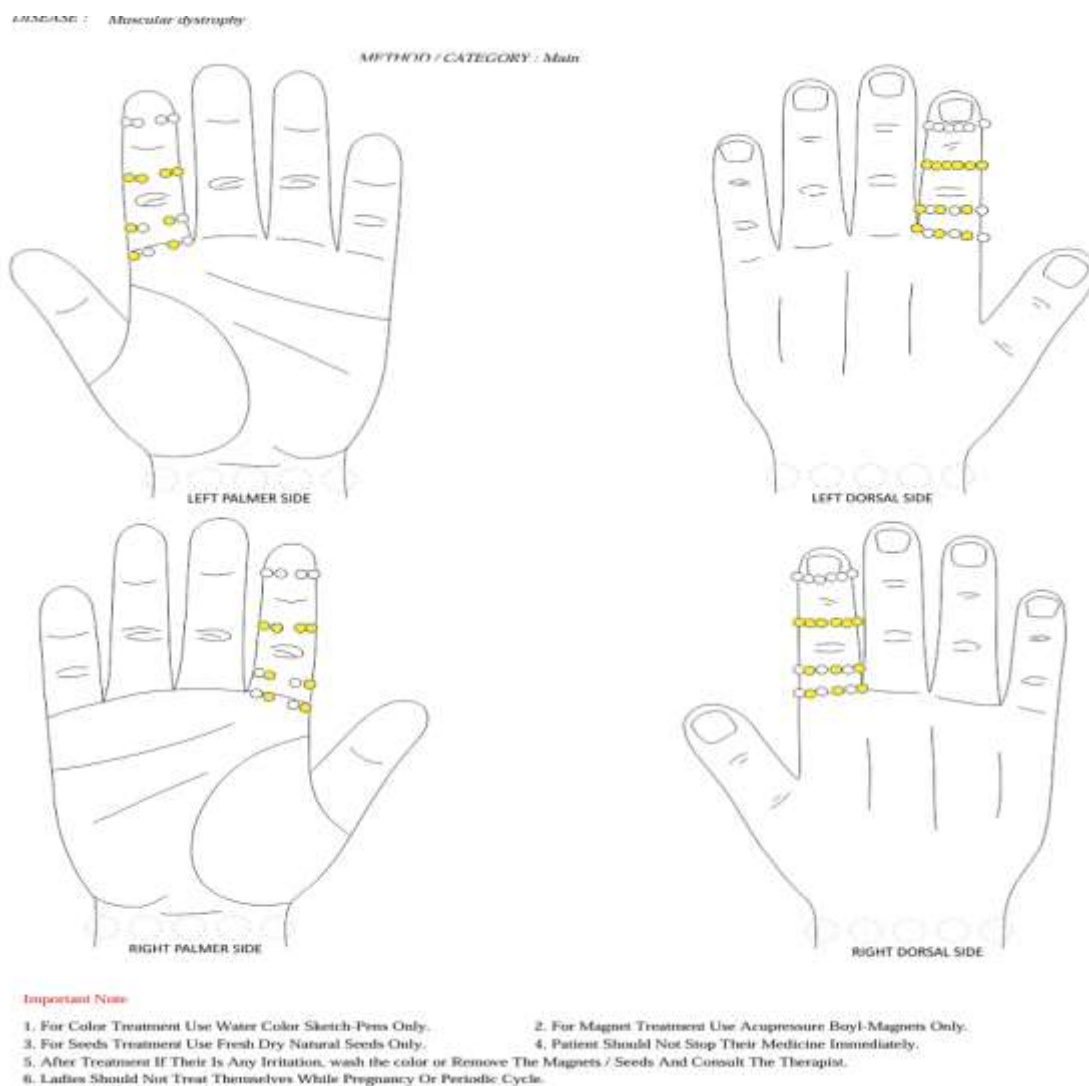


Image 5 shows the applied protocol on hand for backer's leg muscular dystrophy

Result:

Upon initiation of treatment on September 10, 2011, the patient's initial weight was recorded at 49 kilograms. Following six months of Ayurvedic acupressure treatment, disease progression halted. Encouraged by this initial response, treatment continued for an additional six months. Remarkably, at the conclusion of the second six-month period, the patient demonstrated significant improvement, regaining the ability to walk and stand unaided. Treatment persisted, and at present, the patient can perform routine activities, including household chores and motorcycle riding. Notably, the patient's weight increased to 60 kilograms, indicating a positive response to treatment. The success achieved with Ayurvedic acupressure represents a beacon of hope for individuals grappling with similar conditions, offering a promising avenue for managing Becker's leg muscular dystrophy.

Discussion:

The findings of this study highlight the potential efficacy of Ayurvedic acupressure in managing Becker's leg muscular dystrophy, a condition for which conventional allopathic medicine offers limited therapeutic options. The participant, diagnosed with the condition in 2011, experienced progressive debilitation and weight loss, prompting exploration of alternative healing modalities. The decision to pursue Ayurvedic acupressure therapy stemmed from a lack of satisfactory outcomes with allopathic treatments and the participant's willingness to explore non-invasive alternatives. Despite the therapist's disclaimer regarding prior experience with this specific condition, the patient consented to undergo Ayurvedic acupressure treatment, recognizing the absence of associated risks. The observed outcomes of the treatment regimen are noteworthy. Within six months of initiating Ayurvedic acupressure, disease progression halted, suggesting a potential therapeutic effect. This cessation of progression may indicate the modulatory impact of acupressure on the underlying pathophysiological mechanisms of Becker's leg muscular dystrophy. Notably, the subsequent six-month period saw remarkable improvement, with the patient regaining ambulatory function, a significant milestone in the

context of a condition characterized by progressive muscular degeneration. The restoration of motor function, coupled with a weight gain from 49 to 60 kilograms, underscores the tangible benefits conferred by Ayurvedic acupressure therapy. The observed improvements in mobility and weight suggest not only a cessation of disease progression but also a reversal of its debilitating effects. Such outcomes are particularly encouraging in light of the chronic and often irreversible nature of muscular dystrophy. While the precise mechanisms underlying the therapeutic effects of Ayurvedic acupressure remain speculative, several hypotheses warrant consideration. Acupressure is believed to stimulate specific acupoints, restoring the balance of vital energy or "prana" within the body as per Ayurvedic principles. This restoration of energetic equilibrium may exert favourable effects on muscular function, thereby ameliorating symptoms associated with muscular dystrophy. Additionally, acupressure's purported ability to enhance blood circulation and lymphatic drainage may facilitate tissue repair and regeneration, contributing to functional recovery. Nevertheless, this study is not without limitations. The reliance on a single participant limits the generalizability of the findings and precludes definitive conclusions regarding the efficacy of Ayurvedic acupressure in Becker's leg muscular dystrophy. Further research, including controlled trials with larger sample sizes and longer follow-up periods, is warranted to validate these preliminary findings and elucidate the underlying mechanisms of action.

Conclusion

In conclusion, the present study offers compelling evidence of the potential therapeutic benefits of Ayurvedic acupressure in managing Becker's leg muscular dystrophy. The observed improvements in motor function and weight gain underscore the promise of this non-invasive modality in mitigating the debilitating effects of muscular dystrophy and restoring quality of life for affected individuals. Further research endeavors are necessary to corroborate these findings and refine treatment protocols for optimal clinical outcomes.

Availability of Magnets, Surgical Tape and Acupressure healing Consultation for Patients:

This therapeutic intervention is readily accessible through the online procurement of byol -magnets, surgical tape, or specialized doctor tape, facilitating contact with the Acupressure Sodh Prashikshan Evam Upchar Sansthan(ASPEUS) in Prayagraj, India. With the guidance of knowledgeable practitioners, individuals can undergo this treatment from any location worldwide. Its application is straightforward, as practitioners furnish hand charts delineating the precise placement of magnets. By adhering to these charts, individuals can effectively administer the treatment. For instance, within the scope of this study, Image 5 delineates the protocol for addressing Becker's leg muscular dystrophy. Furthermore, acupressure healing is applicable across a spectrum of ailments following consultation with experts. Image six depicts the byol-magnets and specialized doctor tape utilized in the treatment protocol. These byol-magnets are available in various sizes and shapes. During consultation, individuals should inquire with the expert regarding the appropriate size of magnet required for their treatment protocol. If one experiences any discomfort after applying the protocol, they should promptly remove it and seek consultation with the expert.



Image 6 shows the surgical tape and Byol-Magnet

Fundings:

This study was entirely self-funded by the author and did not receive financial support or sponsorship from any private or government institution, organization, or individual. The author independently initiated and conducted the research with personal resources and did not rely on external funding sources to cover the costs associated with the study, including participant recruitment, data collection, analysis, and dissemination. The decision to self-fund the study underscores the author's commitment to advancing knowledge and exploring alternative therapeutic modalities for managing Becker's leg muscular dystrophy. By assuming full financial responsibility for the research endeavour, the author maintains autonomy and integrity throughout the study process, free from external influences or conflicts of interest. While securing external funding can provide additional resources and facilitate larger-scale research endeavours, self-funding allows for flexibility and

agility in research design and execution. Moreover, it ensures that the research remains independent and impartial, driven solely by scientific curiosity and the desire to contribute to the field of healthcare. Despite the absence of external financial support, the author's dedication and personal investment in the study demonstrate a profound commitment to advancing medical science and improving patient outcomes. This self-funded initiative underscores the importance of individual initiative and resourcefulness in driving scientific inquiry and innovation, particularly in areas where traditional funding avenues may be limited or inaccessible. In conclusion, the study's self-funding status reflects the author's unwavering dedication to pursuing scientific inquiry and exploring novel therapeutic approaches. By independently financing the research, the author upholds the principles of academic integrity, ensuring that the study's findings are guided solely by scientific rigor and impartial investigation.

References:

1. Mary, P., Servais, L., & Vialle, R. (2018). Neuromuscular diseases: Diagnosis and management. *Orthopaedics & Traumatology: Surgery & Research*, 104(1), S89-S95.
2. LaPelusa, A., Asuncion, R. M., & Kentris, M. (2024). Muscular dystrophy. *StatPearls*.
3. Ohlendieck, K., & Swandulla, D. (2021). Complexity of skeletal muscle degeneration: Multi-systems pathophysiology and organ crosstalk in dystrophinopathy. *Pflügers Archiv-European Journal of Physiology*, 473(12), 1813-1839.
4. van Essen, A. J. (1997). Genetic and epidemiologic studies in duchenne muscular dystrophy.
5. Heydemann, A. (2018). Skeletal muscle metabolism in duchenne and becker muscular dystrophy— Implications for therapies. *Nutrients*, 10(6), 796.
6. Agrawal, J.P., & Agrawal, P. (2021). Rishi Agastya Ayurvedic Acupressure Vol. 2 (5th ed., p. 7). Acupressure Shodh Prashikshan Evam Upchar Sansthan.
7. Agrawal, J.P., & Agrawal, P. (2021). Rishi Agastya Ayurvedic Acupressure Vol. 1 (5th ed., p. 35-40). Acupressure Shodh Prashikshan Evam Upchar Sansthan.
8. Dong, H., & Zhang, X. (2001). An overview of traditional Chinese medicine. *Traditional Medicine in Asia*, 17-29.
9. Agrawal, J.P., & Agrawal, P. (April 2016). Ayurvedic Treatment Handbook Vol. 2 (4th ed., p. 3-10). Acupressure Shodh Prashikshan Evam Upchar Sansthan.
10. Agrawal, J.P., & Agrawal, P. (August 2016). Ayurvedic Treatment Handbook Vol. 1 (5th ed., p. 1-3). Acupressure Shodh Prashikshan Evam Upchar Sansthan.
11. Agrawal, J.P., & Agrawal, P. (September 2015). Ayurvedic Treatment Handbook Vol. 3 (2nd ed., p. 1-10). Acupressure Shodh Prashikshan Evam Upchar Sansthan.
12. Agrawal, J.P., & Agrawal, P. (April 2016). Ayurvedic Treatment Handbook Vol. 2 (4th ed., p. 2-15). Acupressure Shodh Prashikshan Evam Upchar Sansthan.