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Autism: Treatment using diagnostic Manual Muscle Testing & Professional Applied Kinesiology

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Narrative: The purpose of this paper is to share a method of treating a patient diagnosed with severe autistic disorder. Diagnostic manual muscle test (DMMT), primitive reflexes, receptors-based therapy, meridian therapy, Profession Applied Kinesiology (PAK), chiropractic, and other conservative natural methods were utilised to greatly improve this patient's quality of life and overall well-being in a matter of weeks. Improvements in sleep, motor control, communication, and overall body tone were noted. These changes were accomplished in less than five treatment sessions, spaced one to two weeks apart, and spanning a six-week period.

The treatment of a nine-year-old female with a severe autistic disorder using Diagnostic Manual Muscle Testing (DMMT) and Professional Applied Kinesiology (PAK) showcased remarkable improvements in her quality of life and overall well-being. The patient's ability to sleep, control motor functions, communicate, and overall muscle tone were notably enhanced within a span of five treatment sessions over six weeks.

The case study presented in this paper demonstrates the successful use of Diagnostic Manual Muscle Testing (DMMT) and Professional Applied Kinesiology (PAK) in the treatment of a nine yo female with severe autistic disorder. Through the evaluation and correction of aberrant primitive reflexes using a combination of Chiropractic and complementary therapies, significant improvements were observed in the patient's quality of life, sleep patterns, motor control, and speech abilities in a relatively short period of time. This case highlights the importance of treating the whole person rather than focusing solely on the diagnosed condition, and emphasises the potential benefits of a holistic approach to healthcare. Further research and exploration of these methods may provide valuable insights into alternative treatments for individuals with autism spectrum disorders.

Indexing terms: Chiropractic; Autistic Disorder; Kinesiology Applied; Receptor; Meridians; Neurologic Examination; Reflex; Reflex Startle; Reflex Babinski; Reflex Abnormal; Neurology, Reflex Pupillary.

Introduction

Dr Michael Allen asserts in the Medical Hypotheses Journal that '*with few exceptions, all activities of the CNS, receiving, processing, and integrating information, ultimately finds its expression in the physiological or pathological condition of a muscle. All that converges on the ventral horn physiologically or pathologically affects the manual muscle test (MMT). The cortical efferent*

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display is a window into the functional output of the entire central nervous system. Therefore, the muscle is the end organ relative to the musculoskeletal aspect of the entirety of the sensory system, while the target organ or gland is the end organ of the somatic and/or the autonomic display'.

Dr Noah Moos shared in Virtual Roundtable- Episode 15; 2021 his method using DMMT to evaluate primitive reflexes. He further expanded on using meridian therapy 'alarm points' to locate the dysfunctional muscle/organ relationship/s correlating to specific aberrant primitive reflexes.

Allen discussed the primitive reflexes in his 2021-2022 ICAK-USA Proceedings 'Evaluatingvestibulospinal integrity via three Galant reflex responses using Manual Muscle Testing as functional neurology'. He noted that '*It has been reported by various authors that the primitive reflexes should only have a limited lifespan*'. Goddard continues by saying, '*If these primitive reflexes remain active beyond 6-12 months of life, they are said to be aberrant, and they are evidence of a structural weakness or immaturity within the central nervous system (CNS) … Primitive reflexes retained beyond six months of age may result in immature patterns of behaviour or may cause immature systems to remain prevalent, despite the acquisition of later skills*' (1) That primitive reflex known as the Galant reflex is observed relative to certain phenomenon that encourages movement and develops hip range of motion in preparation for walking and crawling.

Some teachers observe children in their classes who cannot sit still. They say that these children seem to be unable to stay in one place for even the shortest of periods. Besides other signs and symptoms, these kids often have trouble with clothing, like pants or dresses that are too tight around their waist; '*they cannot stand being restricted around their middle*'. Allen more specifically expands on the Galant primitive reflexes by saying, '*the neuro-typical Galant reflex should not be extinguished and it should be retained with its functional attributes, mingling with the neurological matrix that enables the host to resist gravity – i.e., to stand upright. An aberrant Galant reflex permits an abnormal posture, i.e., the inability to stand up straight and it may contribute to scoliosis. One of the main ideas of all the following is that the posture must be appropriate for the host's neuraxis to function according to its highest potential*'.

The purpose of this case report is to expand upon the primitive reflex evaluation described by Moos and its value in improving quality of life for autistic disorder when properly evaluated with DMMT. This report will also give real-world application to the assertion by Allen and receptor based modality as he clearly summarises:

- 'Takeaway #1: Gravity is the stimulus, but receptors are the modality
- 'Takeaway #2: Changing receptor input will change motor response'. An example is the delivery of a coupled manual manipulative adjustment of the periphery and/or centerline structures that causes central changes with concomitant modification of the ventral horn and α-motoneuron display.
- 'Takeaway #3: Modifying receptor input through spinal manipulation, rehabilitative exercise, etc., will change muscle function.The nervous system is dynamic, even responding pathologically to dysplastic/dysrecipric change.
- 'Takeaway #4: Our perspective offers an alternative to the long-held theory that the α-motoneuron is the cause of the receptor input (motor response). It is our intent to convey the truism that the central nervous system is receptor dependent, and that primary afferentation begins in the periphery with the character of its ultimate display being exposed in the end organ. This is a novel presentation relative to the generally accepted attitude that chiropractic lacks credibility'.

Methods

1. Nine-year-old (yo) female presents with severe autistic disorder.
2. Poor sleep, with difficulty going to sleep, and staying asleep.
   - Failure to gain weight.
   - Poor coordination, frequently bumps into walls and other objects.
   - Outbursts and poor verbalisation.
3. History, she had been seeing a physical therapist (PT) and a speech therapist (ST) weekly for the past three years.
4. We were able to perform a single arm DMMT. Other muscle evaluations proved too difficult to communicate, hence perform. She was instructed to hold her arm straight as if pointing her hand towards the ceiling while supine on the table. Fortunately, this allowed for a DMMT of the anterior shoulder muscles and a way into evaluating her nervous system.
5. Stimulation of a single dysfunctional primitive reflex which inhibited her anterior shoulder muscles indicated that this reflex was aberrant.
6. Each aberrant primitive reflex was then evaluated to see which alarm point or points facilitate the inhibited DMMT indicating the related meridian/s and organ involvement. This is accomplished via therapy localisation (TL). TL is activating receptors to a specific region of the nervous system by touching, tapping, pressure, rubbing, pinching, near vision, or far vision etc., which may affect the DMMT. TL allows information to be gathered and layered together toward methods for corrective modality. For example: Activating a dysfunctional rooting primitive reflex on the right cheek inhibits the DMMT, and touching over the heart alarm point facilitates the inhibited DMMT. We may also activate the rooting reflex on the right cheek to inhibit the DMMT then find that near vision facilitates the test as well, and may find that TL to a specific vertebral segment, reflex, or joint may also change the DMMT. Each one of these receptor-based pieces of information is valuable in treating/correcting this primitive reflex. It should be noted; inhibition is not always an unfavourable response, instead changes within the muscle test can help us 'layer' information together as the nervous system responds to the stimuli.
7. Each meridian/organ is typically expressed through a specific related muscle inhibition, which we were unable to use and test in a typical fashion on this patient. (For example, the heart meridian's related muscle relationship is the *subscapularis*. Typically, if the heart alarm point was indicated in 6) then we could change our DMMT to the *subscapularis* of the involved side for evaluation) In this case, we were limited to using the anterior shoulder muscle test alone.
8. After the involved meridian/organ/muscle is identified relative to the aberrant primitive reflex, then TL can be utilised to find the nervous system's next priority for correction.
9. Appropriate treatment was applied to the nervous system along the way, where TL negated each dysfunctional primitive reflex.
10. In traditional Chinese medicine (TCM) there is a concept which is described as a state of 'Yin', which means the nervous system is relaxed. This concept is utilised through DMMT when a dysfunctional primitive reflex has been corrected. The nervous system will reach a state of 'Yin' which manifests as inhibited bilateral DMMT of multiple muscles for a short amount of time. For example: Activating a right aberrant Babinski

reflex inhibits a DMMT, and TL over the right liver alarm point facilitates the inhibited DMMT. TL to the right liver alarm point would be used while 'layering' more information into the DMMT such as related vertebral segments, joints, stressors, muscles, cranial nerves, etc. It should be noted; the inhibited or facilitated DMMT does not matter once the associated alarm point is uncovered. We make proper corrections until the nervous system reaches 'Yin' for that dysfunctional pattern.

11. Each primitive reflex was evaluated and corrected as indicated utilising PAK, Chiropractic, and complementary and alternative therapies with improvements to the patient's overall quality of life, sleep, motor control, muscle tone, and speech.

Discussion

Upon presentation, the nine yo girl, was described by her parents as suffering from frequent collisions with objects, floppy body movements, difficulty gaining weight, outbursts, and disrupted sleep patterns sensitive to routine changes.

Initial examination and treatment were challenging due to the patient's restlessness and limited communication abilities. However, the use of DMMT enabled the evaluation of primitive reflexes and nervous system function. She was able to perform the task of holding her right or left arm up in the air (pointing towards the ceiling), while lying supine on the examination table.

The first visit was the most difficult and shortest of the five treatment sessions. Her right rooting primitive reflex inhibited the DMMT which was found to be related to the left lung (meridian) alarm point via TL. Next, the left lung alarm point was either tapped to TL or she was instructed to touch the alarm point herself for TL depending on level of compliance. Next, corrective modality was applied to bilateral 1st metacarpals, bilateral diaphragm manipulation, right occiput, and right C1 before the 'Yin' pattern emerged. The right rooting reflex was then re-evaluated using DMMT which was now found to be of neuro-typical function.

Second visit, she was said to be sleeping better as well as not bumping into walls over the past week. An aberrant Moro primitive reflex was found related to stomach alarm point, and an aberrant right upper Galant primitive reflex was found related to stomach alarm point as well. Corrective modality was applied as previously described. Corrections were given to bilateral talocrural, left 1st metacarpal, right 1st metacarpal three times, right ear, left C2, left T8, and one emotional incongruency. Re-evaluation indicated a neuro-typical response to Moro; however, the right Galant reflex was still aberrant and needed more evaluation on the following visit.

Third visit, she was described to be more in control of her body, "less floppy". Both the speech therapist and physical therapist noted a drastic improvement in her abilities that week. An aberrant right upper Galant primitive reflex was found related to pericardium alarm point, and a aberrant right palmar grasp primitive reflex was found related to heart alarm point. Corrective modality was applied to bilateral diaphragm, bilateral 1st metacarpals, bilateral talocrural, right occiput, right C1, left anterior ilium, left calcaneus, right scaphoid, and left *scalene* muscles.

Fourth visit, she met her three yearlong physical therapy goal of standing/balancing on one leg that week. An aberrant right asymmetric tonic neck primitive reflex was found related to bladder alarm point. Corrective modality was applied to bilateral 1st metacarpals, right occiput, left occiput, right C1, bilateral talocrural, left *diaphragm*, south pole magnet left knee, right upper trapezius muscle, and right posterior ilium.

Fifth visit, all primitive reflexes were neuro-typical in nature. Evaluation included; palmar grasp, rooting, Moro, Galant, asymmetric tonic neck, Babinski, suckling, tonic labyrinthine, as well as pupillary light/dark reflexes. A general well-being treatment was applied on this visit. Corrective modality was applied to bilateral diaphragm, bilateral upper trapezius muscles, bilateral talocrural, right occiput two times, left C1, right anterior ilium, bilateral sacrotuberous

ligaments, and bilateral scalene muscles. At the conclusion of this visit, her verbal communication was noted to be clearer.

Results

The treatment of a nine-year-old female with a severe autistic disorder using Diagnostic Manual Muscle Testing (DMMT) and Professional Applied Kinesiology (PAK) showcased remarkable improvements in her quality of life and overall well-being. The patient's ability to sleep, control motor functions, communicate, and overall muscle tone were notably enhanced within a span of five treatment sessions over six weeks.

Each session involved the evaluation and correction of aberrant primitive reflexes, alongside a holistic approach integrating chiropractic and complementary therapies. At the outset, the patient presented with significant challenges, including poor sleep patterns, difficulty in gaining weight, coordination issues, frequent collisions with objects, and verbalization difficulties. Initial assessments were hindered by the patient's restlessness and limited communication abilities. However, through the strategic use of DMMT, we were able to evaluate her primitive reflexes and the functionality of her nervous system effectively.

The first treatment session addressed the right rooting reflex, which inhibited DMMT and was related to the left lung meridian alarm point. Through TL, corrective modalities, and receptor-based therapy, the rooting reflex was brought to a neuro-typical function. Subsequent sessions saw a progressive improvement in the patient's condition.

By the second visit, there was a noticeable enhancement in sleep quality and a reduction in collisions with objects. Aberrant Moro and Galant reflexes were identified and corrected, leading to significant improvements in motor control and coordination.

The third and fourth sessions focused on additional primitive reflexes, including the right upper Galant and asymmetric tonic neck reflexes, related to various meridian alarm points. Corrective modalities applied during these sessions further improved the patient’s control over her body movements, to the point where she achieved her three-year-long physical therapy goal of balancing on one leg.

By the fifth visit, all evaluated primitive reflexes were found to be neuro-typical, marking a significant milestone in the patient's treatment. The session concluded with general well-being treatment, after which her verbal communication was observed to be clearer. In conclusion, the case demonstrated the efficacy of DMMT and PAK in treating a patient presenting with severe autistic disorder, highlighting the potential of these methods in improving the quality of life for individuals with autism spectrum disorders. The remarkable progress made by the patient underscores the value of a holistic treatment approach, encouraging further research and application of these techniques in healthcare.

Conclusion

The case study presented in this paper demonstrates the successful use of Diagnostic Manual Muscle Testing (DMMT) and Professional Applied Kinesiology (PAK) in the treatment of a 9 yo female with severe autistic disorder. Through the evaluation and correction of aberrant primitive reflexes using a combination of chiropractic and complementary therapies, significant improvements were observed in the patient's quality of life, sleep patterns, motor control, and speech abilities in a relatively short period of time. This case highlights the importance of treating the whole person rather than focusing solely on the diagnosed condition, and emphasises the potential benefits of a holistic approach to healthcare. Further research and exploration of these methods may provide valuable insights into alternative treatments for individuals with autism spectrum disorders.

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