

Learning Disability and Reading Difficulty in a 12-Year-Old Male

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Introduction

The patient is a 12-year-old male presented a chiropractic neurology clinic with a diagnosis of dyslexia.

Methods

Exam findings reveal proper convergence was not achieved past 10 inches and an inability to perform rightward pursuits. Using videonystagmography (VNG), saccadic eye movements showed a latency of 212ms rightward and 187ms leftward. The comprehensive assessment of postural systems (CAPS EQ) results were with the stable surface with eyes open, he scored a 93% (Test 1). On a stable surface with eyes closed, he scored a 90.4% (test 2). On a perturbed surface with eyes open the initial score was 79.1% (test 3) and with eyes closed it was 72.1% (test 4). The treatment plan was to improve the left frontal lobe, cerebellum, mesencephalon and the mid-line inferior frontal lobe. Prior to therapies, adjustments were performed on the upper three ribs, occiput and/or upper cervical where needed. The therapies used included a Marsden ball, interactive metronome, Brock string, whole body rotation with targets, and a vibration plate.

Results

At the conclusion of 11 weeks of care, the patient was reevaluated and his CAPS EQ scores were as follows: Test 1 - 86.6%, Test 2 - 92.7%, Test 3 - 85.5%, Test 4 - 83.3%. His post VNG scores revealed 170ms latency leftward and 169ms rightward.



Conclusion

Based on the results presented in this case, further research needs to be conducted to fully understand the application of convergence and stability exercises for individuals suffering with dyslexia.