Introduction

Attention Deficit Disorder (ADD) is one of the most commonly diagnosed childhood psychiatric conditions. Fifteen million children in the U.S. are diagnosed as having ADD. The most common method of treatment is medication. Many visual symptoms can mimic the symptoms of ADD, impacting attention.

Symptoms that can accompany the Attention Deficit Disorder diagnosis are similar to the symptoms that appear on the College of Optometrists in Vision Development (COVD) Quality of Life checklist when evaluating disorders of the visual system. This poster presents two case reports where patients with ADD symptoms benefited from Vision Therapy.

Case Report

CB, a 10-year-old male in fourth grade, was diagnosed as having severe ADD by his primary care physician. His symptoms included difficulty maintaining attention, controlling his motor behavior, and poor school performance. His mother was reluctant about starting medication and wanted to investigate the diagnosis further.

She participated in a Vision Therapy behavioral study at the Eye Institute. Her chief complaint was that he struggled to sit still for any period of time and was having problem reading and writing things. He would be in the middle of school. He had behavioral issues in the classroom due to his inability to sit still and concentrate. His medical history was positive for astigmatism, but a review of systems was otherwise unremarkable.

There was no significant ocular history and no family history of ADD or other neurological conditions, and all developmental milestones were met on time. He was taken Ad for his astigmatism.

Results of Initial VEE

Visual Acuity sc Distance and Near

20/20 OD, OS, OU

Correct Test

FCC OD, OS, OU

NPC repeated after testing

FCC OD, OS, OU

EOMs: Full

CVP: FTCC OD, OS

Pupils: ERKL (-) APD

Subjective Refraction

+2.00 DS OU

NRA/OPA

+1.50 DC LH

Vergences @ Near

BO: +4/30 RE/LE 1/30 (acades and pursuits)

NPC

Minus Lens Accommodative

80 OD, OS, OU

FCC

-0.25 OD, -0.25 OS

Anterior and Posterior Segment

Unremarkable

Convergence Insufficiency (Ocular Motor Dysfunction, belineate Accommodative Insufficiency

Plan

Release saccate fits and initiate Vision Therapy

RT, an 11-year-old female in fifth grade, was diagnosed with anxiety and ADD. She had been prescribed medication for her anxiety related to school work but her mother was unsure whether the medication helped because she continued to struggle with reading and writing as well.

Her mother decided to not start the medication for her daughter's ADD until she did some further investigation. The patient presented for a Vision Efficiency Examination to the Eye Institute. Her chief complaint was that she could not focus/attend on her school work, she avoided near work, she saw double, she had difficulty coping from the board, and she could not sit still. She had diminished ability to do well on schoolwork, and be able to become anxious and sit still. The physician declined to give her near vision.

Diagnosis:

Convergence Insufficiency, Ocular Motor Dysfunction, belineate Accommodative Insufficiency

Assessment

Visual Acuity sc

20/20-2 OD, 20/20 OS, 20/20-2 Near

NPC repeated after testing

FCC OD, OS, OU

EOMs: Full

CVP: FTCC OD, OS

Pupils: ERKL (-) APD

Subjective Refraction

-12.50 OD, -11.50 OS

NPC

Minus Lens Accommodative

80 OD, OS, OU

FCC

+2.75/-1.50

Anterior and Posterior Segment

Unremarkable

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Plan

Follow-up therapy for approximately 3 months +0.75 OD, +0.75 OS

Vision Therapy

CB’s mother noted that there was a significant improvement in class performance. CB said he could now complete his school assignments; "I could actually read without going over, and over, and over", she stated. CB’s performance at school and behavior at home improved considerably. His physician modified his diagnosis from severe to mild ADD. Patient was recommended to have more therapy to solidify his new skills and strengthen his skills in the mildly deficient areas but was unable to continue at this time due to financial reasons.

CB Vision Efficiency Examination Post VT

Visual Acuity sc Distance and Near

20/20 OD, OS, OU

Correct Test

FCC OD, OS, OU

NPC repeated after testing

FCC OD, OS, OU

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CVP: FTCC OD, OS

Pupils: ERKL (-) APD

Subjective Refraction

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NRA/OPA

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Vergences @ Near

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3+ 3+ 2+ 2+ saccades and pursuits

FCC

-0.75 OD, -0.75 OS

Case Report

Patient: C. H. - Age: 11 - Gender: F

History of Vision Therapy

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Conclusion

Vision therapy should be considered for patients with visual symptoms coupled with a diagnosis of ADD in addition to anxiety associated with poor school performance. Education about the link between the two could avoid further stress at school, unnecessary medication for the child, as well as a misdiagnosis of ADD.

References


2. The Ophthalmic Neuroscience Foundation. www.onf.org


Following Vision Therapy, RT’s mother went back to the pediatrician, who after re-evaluating her symptoms, removed the ADD diagnosis and lowered the dosage on her Zoloft. The patient’s mother stated that she was doing much better and wanted to go to school in the morning. She was now involved in after school activities and played the violin. Her original complaints were now less prevalent. BT reported that she did not see double anymore and that she loved to read. Patient was recommended to have more therapy to solidify her new skills and strengthen her skills in the middle deficient areas but was unable to continue at this time due to time constraints and financial responsibilities.