

Splenium, the Most Common Structural Brain Abnormality among Iraqi Children Population Diagnosed with ADHD

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ABSTRACT

Objective: Globally, ADHD is a widespread neuropsychological condition. Inappropriate levels of inattention, hyperactivity, and Phenotypes of impulsivity describe the disorder. Various studies have been shown that a variety of brain sections is damaged in ADHD patients. This study aimed to evaluate the structural brain abnormalities among the Iraqi children population diagnosed with ADHD using MRI.

Methods: Ten male and five female with mean age = 10.3, SD=2.44 diagnosed with ADHD/ /Hyperactivity were included to our study. All of them underwent a brain MRI assessment.

Results: MRI evaluation was positive in 60% (9/15) patients and negative in 40% (6/15). Out of 15 participants, 8 participants show clinical symptoms of attention deficit disorder, 4 patients show symptoms of hyperactivity/ impulsivity, and 3 have combined type of the disease. Sub cortex, Selenium, Pineal Gland, cerebral, retro cerebellar Arachnoid, Frontal & Temporal Lobes, and Frontal Lobe were damaged regions in the brain structure. Splenium was the most common abnormality finding in patients. The outstanding point of our results was that no brain anomaly was reflected in the MRI findings for patients with hyperactivity.

Conclusion: Although our findings did not show abnormality in all patients with attention deficit, MRI can be considered as a pivot strategy in ADHD diagnosis.

Keywords: ADHD, Brain abnormalities, Iraq

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