Evaluation of the neutrophil/lymphocyte ratio, platelet/lymphocyte ratio and mean platelet volume as inflammatory markers in children with attention-deficit/hyperactivity disorder.

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Abstract

AIM: The neutrophil-lymphocyte ratio (NLR), platelet-lymphocyte ratio (PLR), monocyte-lymphocyte ratio (MLR), and mean platelet volume (MPV) have recently been used as indicators of a systemic inflammatory response. The aim of this study was to investigate the relationships of the NLR, PLR, MLR, and MPV with attention-deficit/hyperactivity disorder (ADHD).

METHODS: The study group consisting of 82 children diagnosed with ADHD was compared with a healthy control group of 70 age-, gender-, and body mass index (BMI)-matched subjects. The NLR, PLR, MLR, and MPV were measured according to the complete blood count.

RESULTS: The NLR, PLR, MLR, MPV, and neutrophil count of the ADHD group were significantly higher than those of the control group. The lymphocyte counts of the patients were significantly lower than those of the control group.

CONCLUSION: Inflammation might play a role in the etiopathogenesis of ADHD. The NLR, PLR, MLR, and MPV may be potential inflammation markers for ADHD in children.