

EVALUATION OF PLASMA ATHEROGENIC INDEX, CASTELLI RISK INDEX, AND ATHEROGENIC COEFFICIENT IN PATIENTS WITH PANIC DISORDER: A CASE-CONTROL STUDY

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BACKGROUND AND AIM: The plasma atherogenic index (AIP) and atherogenic coefficient (AC) have been reported to be significantly higher in patients with depression and bipolar disorder compared to a healthy control group. This study aims to evaluate AIP, Castelli Risk Index (CRI), and AC in patients with Panic Disorder (PD) and compare them with a healthy control group.

METHODS: This case-control study was conducted between December 18, 2024, and February 1, 2025, with 54 PD patients receiving active treatment and 53 age- and sex-matched healthy controls. The disease duration of PD patients included in the study ranged from 3 months to 2 years. In all participants, total cholesterol (TC), triglycerides (TG), high-density lipoprotein cholesterol (HDL-C), low-density lipoprotein cholesterol (LDL-C), AIP, AC, and CRI were evaluated. The study was approved by the Adiyaman University Non-Interventional Clinical Research Ethics Committee (Decision No: 2024/10-2, dated 17/12/2024).

RESULTS: The mean cholesterol level in the case group (184.63±54.21 mg/dL) was significantly higher than in the control group (166.92±33.57 mg/dL) ($t = 2.027$, $p=0.045$). Similarly, the mean LDL level in the case group (109.98±31.31 mg/dL) was higher than in the control group (98.53±25.97 mg/dL) ($t=2.057$, $p=0.042$). The mean PD severity score was 15.76±5.53. Significant positive correlations were found between PD severity and AC ($r=0.307$, $p<0.05$) and CRI-I ($r=0.320$, $p<0.05$).

CONCLUSIONS: These findings suggest that increases in AC and CRI-I were positively associated with PD severity, whereas other parameters had no significant effect. There was no significant difference between the case and control groups in terms of PAI, CRI or AC. It is recommended that PD patients should be monitored more frequently and closely for cardiovascular disease risk.

Keywords: Panic disorder, plasma atherogenic index, castelli risk index, atherogenic coefficient