The aim of this study was to analyze the levels of resistin, tumor necrosis factor alpha (TNF-α), interleukin (IL)-1β, IL-6, IL-18, and C-reactive protein (CRP) in patients with Alzheimer's disease (AD) and also to assess the possible relationship between the resistin level and the TNF-α, IL-1β, IL-6, IL-18, and CRP levels in AD patients. Fifty patients with AD and 30 healthy controls with normal cognitive function were enrolled in this study. The serum resistin, TNF-α, IL-1β, IL-6, IL-18, and CRP were evaluated. Mini-Mental State Examination (MMSE) was performed for evaluation of the general cognitive performance. The mean serum resistin, IL-1β, IL-18, and TNF-α levels were significantly higher in patients with AD compared with the controls (p=0.026, p=0.002, p=0.003, p=0.038, and respectively). The IL-6 and CRP levels were not different between the groups (p=0.874 and p=0.941). The levels of resistin were positively correlated with the levels of CRP and IL-18 (r=0.526, p<0.001 and r=0.402, p=0.004). There was no correlation between the scores of MMSE and inflammatory markers (p>0.05 for all). Serum resistin were significantly increased and correlated with the inflammatory markers in AD patients, suggesting that resistin might play a role in the inflammatory process of AD.

Keywords: Resistin; inflammatory cytokines; Alzheimer's disease; inflammation.