# Expression and significance of plasma 3-NT and ox-LDL in patients with Alzheimer's disease

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**ABSTRACT.** To examine the expression and clinical significance of plasma 3-nitrotyrosine (3-NT) and oxidized low-density lipoprotein (ox-LDL) levels in patients with Alzheimer's disease (AD), we examined 48 AD patients and 37 healthy control subjects. The Mini-Mental State Examination, Activities of Daily Living Scale, and Hachinski Ischemic Scale were examined in all subjects. AD patients were classified using the Global Deterioration Scale. The concentrations of plasma 3-NT and ox-LDL were detected using an enzyme-linked immunosorbent assay. We found that the plasma 3-NT concentration in the AD group (119.46 ± 21.82 nM) was significantly higher than that in the control group (55.09 ± 9.63 nM) ($P < 0.05$). Spearman analysis showed that plasma 3-NT level was negatively associated with the Mini-Mental State Examination results of AD patients. Plasma ox-LDL level in the AD group (112.25 ± 17.81 μg/L) was significantly higher than that in the control group (47.46 ± 10.04 μg/L) ($P < 0.05$). Spearman analysis showed that plasma ox-LDL level was positively correlated with AD severity in AD patients. However, plasma 3-NT level in the AD group was not associated with plasma ox-LDL level. Therefore, plasma 3-NT

and ox-LDL levels in AD patients were significantly increased, which may be related to the degree of AD severity in AD patients.