BACKGROUND/AIM: To compare the cognitive functions and define the frequency of Alzheimer disease (AD) between participants with and without age-related macular degeneration (AMD).

MATERIALS AND METHODS: Fifty-nine patients with late-stage AMD (74.3 ± 7.3 years) and 49 age-, sex-, and education-matched control subjects were compared for the presence of AD according to the guidelines of the National Institute of Neurological and Communicative Disorders and Stroke and the Alzheimer's Disease and Related Disorders Association (NINCDS-ADRDA). Detailed neuropsychological tests were performed for all subjects.

RESULTS: Neuropsychiatric tests scores were lower in the AMD group than the control group. The frequency of AD was higher in patients with AMD (40.7% in AMD and 20.4% in control group, P = 0.03), and particularly higher in late dry (nonvascular) AMD (d-AMD) patients (71.4% in d-AMD and 31.1% in late wet (vascular) AMD, P = 0.007). d-AMD patients performed worse than controls on all tests. There was also an association between age, sex, and low education and neuropsychiatric tests scores (P < 0.01). However, there was no association between visual acuity and neuropsychiatric tests scores.

CONCLUSION: The increased frequency of AD in patients with AMD is significant. This study demonstrated the importance of cognitive assessment in patients with AMD, particularly in the d-AMD type.