

Lack of association of ACE gene I/D polymorphism with obstructive sleep apnea syndrome in Turkish patients

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ABSTRACT. Angiotensin-converting enzyme (ACE) is a vital enzyme in the renin-angiotensin-aldosterone system, and there are reports in the literature describing its role in the development of cardiovascular system diseases, with I/D polymorphism of the ACE gene. We examined the relationship between a patient group with obstructive sleep apnea syndrome (OSAS) and a control group in terms of I/D polymorphism of the ACE gene. We examined 64 patients, with 37 individuals serving as the control group. PCR was used to detect ACE I/D gene polymorphism. Genotype was determined according to the bands that formed on agarose gel electrophoresis. Among the 64 OSAS patients, 27 were identified with the ID genotype, 27 with the DD genotype and 10 with the II genotype; among the 37 control subjects, 19 were identified with the ID genotype, 11 with the DD genotype and 7 with the II genotype. When the case group and controls were compared in terms of ID, II and DD genotypes, no significant difference was observed. On the other hand, when the two groups were compared with respect to mean body

mass index, the OSAS group was found to be significantly different from the control group ($P = 0.009$). We conclude that ACE I/D gene polymorphism is not a genetic risk factor for OSAS in Turkish patients.

Key words: Polymorphism; ACE gene; Obstructive sleep apnea syndrome