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Angiotensin-Converting Enzyme Gene Insertion/Deletion Polymorphism in Patients with Pulmonary Thromboembolism

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ABSTRACT The aim of the present study is to investigate the relationship between angiotensin-converting enzyme (ACE) gene polymorphism and pulmonary embolism by comparing the frequency of ACE gene polymorphism between cases diagnosed with pulmonary embolism with that of the control group. The study included 73 patients and 73 healthy subjects as the control group. Isolated DNAs were genotyped using the polymerase chain reaction (PCR) method for the identification of the ACE insertion/deletion (I/D) polymorphism. The genotypes were determined according to the bands observed in the agarose gel electrophoresis. The frequency of ID genotype was 39.7 percent, the frequency of insertion/insertion (II) genotype was 17.8 percent, and the frequency of the deletion/deletion (DD) genotype was 42.5 percent in the patient group. In the control group, the frequency of the II genotype was 21.9 percent, the frequency of the ID genotype was 38.4 percent, and the frequency of the DD genotype was 39.7 percent. There were no statistically significant differences between the patient group and the control group in terms of the frequencies of II, ID, and DD genotypes ($p > 0.05$). The findings of the present study showed no association between ACE gene polymorphism and the risk of developing the pulmonary embolism. Due to the limited number of patients however, these results must be confirmed by further studies incorporating larger series of patients.