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## The Coincidence of ACE Gene Polymorphism with Occult HBV Infection in Egyptian Patients with End-Stage Renal Disease

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### Abstract

**Background:** Occult hepatitis B virus (HBV) could be infective through blood transfusion or organ transplantation. The ACE-gene insertion/deletion polymorphism of the 16<sup>th</sup> intron plays a crucial role in the development of end-stage renal disease (ESRD).

**Objectives:** We aimed at revealing the association between II genotype of ACE polymorphism and occult HBV infection in ESRD Egyptian patients.

**Methods:** We performed real-time PCR for the quantification of HBV-DNA and for diagnosis of ACE polymorphism in the serum of 139 ESRD patients. **Results:** Out of 139 patients, 125 (89.9%) were HBsAg negative. We observed a high percentage of the II genotype (106=76.2%), while the DI and DD genotypes were (19=13.7%) and (14=10.1%), respectively. The I allele represented 83.1% whereas the D allele was 16.9%. The II and DI genotypes had a statistically significant difference in the mean level of PCR. The DI genotype among males and the DD genotype amongst females had the higher statistically significant percentages. The presence of I allele declared a statistically significant difference in the mean levels of AST and PCR. **Conclusion:** We found that the high percentage of I allele or II genotype of ACE polymorphism in ESRD Egyptian patients might be responsible for the existence of HBV DNA with lack of exhibited hepatitis B surface antigen.

**Key words:** ACE, polymorphism, ESRD, occult, HBV