

The Association of Estrogen Receptor Alpha XbaI Gg Genotype and Severe Preeclampsia

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Abstract : Purpose: Estrogen receptor- α (ER α) plays an essential role in the adaptation of increased uterine blood flow during gestation. Therefore ER α gene could be a possible candidate for preeclampsia(PE) susceptibility. In the current study, we aimed to investigate the association of the ER α gene polymorphisms and PE in an Iranian population. Methods: One hundred ninety-two pregnant women with PE and 186 normotensive women were genotyped for ER α gene (PvuII and XbaI) polymorphisms by PCR-RFLP method. Results: The frequency of alleles and genotypes of ER α PvuII and XbaI polymorphisms were not different between PE and normotensive control women. However, higher frequency of GG genotype was observed in women with severe PE compared to mild PE (OR, 1.8 [95% CI, 1.1 to 3]; P = 0.02) and in severe PE compared to normotensive women [OR= 1.8(1.1-3), P=0.02] after adjusting for age, ethnicity and primiparity. Conclusions: The GG genotype of ER α XbaI polymorphism could be a genetic risk factor for PE predisposition.

Keywords : estrogen receptor- α , polymorphism, gene, preeclampsia

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