

Extended Abstract

Evaluation of the VNTR region in the IDO promoter in women with preeclampsia

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Objective

Indoleamine 2,3 – dioxygenase (IDO) is an enzyme that aids in immunosuppression and tolerance. Previous studies have shown decreased IDO activity in pregnancies affected by preeclampsia, but the mechanism for this altered activity is unknown. Our study was designed to analyze the promoter region of IDO in preeclamptic and control women and identify the frequency of a VNTR genotype that has been shown to be significantly correlated with tryptophan levels in women; a surrogate marker for IDO activity.

Methods

We conducted a retrospective case-control study examining preeclamptic

women, including mild, severe, and superimposed preeclamptic women, and control women for a VNTR polymorphism. Study participants were selected from the University of Iowa's Maternal Fetal Tissue Bank. The VNTR region was amplified from genomic DNA. Electrophoresis was used to determine whether each woman carried the V1/V1, V1/V2, or V2/V2 genotype. Genotypes from preeclampsia cases were compared to controls using a Fisher's exact test.

Results

Thirty three preeclamptic women were analyzed for this study and compared to 53 control women. We found no statistically significant predominance of one genotype in the preeclamptic group compared to the control group. (V1/V1

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8/33 vs 8/53; P = 0.39, V1/V2 15/33 vs 24/53; P = 1.0, V2/V2 10/33 vs 21/53; P = 0.49.)

Conclusions

Our study did not document a significant difference of the VNTR genotype in preeclamptic women when compared to control women.

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