

## Association of *MMP2* gene polymorphisms (-735C/T and -1306C/T) in preeclamptic patients in Indian population

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**Introduction & Aim:** Imbalanced Matrix Metalloproteinase (MMP) expression, including *MMP2*, has been demonstrated in preeclampsia. However, little is known about the effect of *MMP2* gene polymorphisms on hypertensive disorders of pregnancy. Therefore, we examined matrix metalloproteinase (*MMP2*) gene polymorphisms (g.-735C/T and -1306 C/T) and their association with Preeclampsia (PE) and measured the levels of *MMP2* serum concentrations in PE Patients.

**Material & Methods:** 30 preeclamptic and 30 healthy pregnant women (control group) were enrolled from Department of Obstetrics and Gynecology, AIIMS, New Delhi after getting approval from Institute Ethical Committee. Genomic DNA was extracted from blood and amplified by PCR. *MMP2* gene polymorphisms of -735C/T and -1306 C/T were detected by Restriction Fragment Length Polymorphism (RFLP). The levels of *MMP2* in sera were measured by ELISA.

**Results:** The maternal serum *MMP2* levels was found to be more in PE patients as compared to control group ( $p=0.03$ ). The increased frequency of CT genotype for *MMP2* (-735C/T) Single Nucleotide Polymorphism was seen in PE patients as compared to control group whereas the *MMP2*-1306C/T (rs243865) didn't show any change in patients as well as controls. However the difference in genotype frequency in both polymorphisms was not statistically significant.

**Conclusion:** More no of sample size is required to understand the relevance of *MMP2* and its genetic polymorphisms in the pathophysiology of hypertensive disorders of pregnancy like preeclampsia and IUGR.

### Biography

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