Manisha Mishra et al., J Mol Genet Med 2019, Volume 13
DOI: 10.4172/1747-0862-C1-036

Association of *MMP2* polymorphisms in preeclampsia

Manisha Mishra, Arora Pallavi, Saxena Shobhit, Gupta Sunil, Mochan Sankat, Kasapuram Dheeraj, Singh Seema, Bhatla Neerja, Sharma Arundhati, Dhingra Renu and Rani Neerja
All India Institute Of Medical Sciences, India

Background & Aim: Imbalanced Matrix Metalloproteinase (MMP) expression, including *MMP-2*, has been demonstrated in pre-eclampsia. However, little is known about the effect of *MMP-2* gene polymorphisms on hypertensive disorders of pregnancy. Therefore, we examined Matrix Metalloproteinase (*MMP-2*) gene polymorphisms (g.-735C/T) and its association with Preeclampsia (PE) and measured the levels of *MMP-2* serum concentrations in PE.

Method: 30 preeclamptic and 30 healthy pregnant women were enrolled from department of obstetrics and gynaecology, 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 was detected by Restriction Fragment Length Polymorphism (RFLP). The levels of *MMP2* in sera were measured by ELISA.

Result: The maternal serum *MMP2* levels was found to be more in PE patients than in 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. However the difference in genotype frequency was not statistically significant (p=0.35).

Conclusion: These findings may help to understand the relevance of *MMP-2* and its genetic polymorphisms to the pathophysiology of hypertensive disorders of pregnancy like preeclampsia and IUGR.

Biography

Manisha Mishra had completed Bachelor of Dental Surgery and MSc Anatomy from All India Institute of Medical Sciences, New Delhi, India. She is currently a Senior Reseach Fellow at All India Institute of Medical Sciences, India.

mani040790@gmail.com