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## GSTP1 gene polymorphism in healthy cohort stratified by Micronutrient- Intake

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**Background:** Glutathione S-Transferases (GSTs) are detoxifying enzymes which provide protection to cellular macromolecules from exogenous agents.

**Aims and Objectives:** Among the GST genes, the GSTP1 (rs 1695) genetic polymorphisms vary in detoxifying xenobiotics and may predispose individuals to disease. The A313g variant causes the Ile105val substitution which leads to lesser activity of GlutathioneS-transferases posing susceptibility to diseases.

**Material and Methods:** The present study reports GSTP1 (rs1695) genotypes of cases(n=100) which were taking dietary supplements and controls(n=100) not taking dietary supplements .The study was approved by the Institutional Ethical Committee and was carried out after obtaining informed consent with no history of exposure/illness/medication(s). Venous blood samples were used to extract DNA followed by performing polymerase chain Reaction (PCR) and restriction fragment length polymorphism (RFLP) analysis.

**Results:** The GSTP1 genotype (AA) was most frequent 84% (AA), followed by 14% of (AG) and 02% (GG) in cases and 78% (AA), followed by 10% of (AG) and 12% (GG) in controls.

**Conclusions:** Differences in percent frequency of genotypes in individuals taking supplements from those of controls signifies effect of micronutrients. Studies on a larger group can better elucidate the frequency of these genotypes in the local population which can be used in other studies to correlate likelihood of susceptibility to disease/ environmental exposure (s).

### Biography

Maninder doing PhD from Guru Nanak Dev University. I have done masters in Molecular Biology and Biochemistry. My area of work is Health care and dietary supplements. I have published about 2 paper in reputed journals. I have also participated in various seminars/ conferences and given oral /poster

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