

# Cytochrome P4501A1 (CYP1A1), glutathione S transferase M1 (GSTM1) polymorphisms and their association with smoking and alcohol consumption as gastric cancer susceptibility biomarkers Variantes alélicas de CYP1A1 y GSTM1 como biomarcadores de susceptibilidad

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**Background:** Gastric cancer (GaC) is the second cause of death by cancer in the world and one of the first causes in Chile. However, the burden of this disease shows remarkable worldwide variation probably explained by environmental and genetic factors. The role of susceptibility low penetrance genes and environmental and dietary factors in the etiology of gastric cancer is not well-known. **Aim:** To analyze the possible association between GaC susceptibility, genetic (CYP1A1 and GSTM1 polymorphisms) and environmental (tobacco and alcohol) factors. **Patients and Methods:** In a case-control study, we included 73 patients with a pathologically diagnosed GaC and 263 controls. DNA was extracted from peripheral blood to detect allele variants for CYP1A1 and GSTM1, using polymerase chain reactions and digestion with restriction enzymes. **Results:** There was a clear association of smoking and alcohol ingestion with GaC with odds ratios (OR) of 2.54 (95% confidence intervals (CI) of 1.45-4.46 and OR o