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Plasma Haptoglobin and Group-specific Component Phenotypic Variants Increase the Risk of Chronic Kidney Disease

Pavani Sanapala, Ramesh Mandarapu, Paddaiah Gangisetti and Sudhakar Godi

Department of Human Genetics, Andhra University, Andhra Pradesh, India 530 003

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ABSTRACT The researchers studied the correlation of Haptoglobin (HP) and Group-specific Component (GC) plasma protein biomarkers in chronic kidney disease (CKD) patients and non-CKD controls using discontinuous-polyacrylamide gel electrophoresis. The results showed a significant difference between the CKD and control clusters of 2-2 variants for HP (p=0.0036) and GC (p= 0.0033). The current research indicates 2-2 phenotype is an independent risk determinant for CKD, while risk analysis reports odds value >1 for both protein polymorphisms signifying an effective risk towards CKD. The multifactor dimensional reduction analysis also detailed HP and GC markers have a strengthening and stronger association and are causative for CKD development. Collectively, the findings signify a potential risk of plasma HP and GC polymorphisms being susceptible to CKD and their key role in the deterioration of kidney functions.