

Glutathione S-Transferase Gene Polymorphisms in Children with Down Syndrome and Their Mothers

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ABSTRACT To elucidate the genetic factors causing clinical differences in the children with Down syndrome and evaluate possible maternal risk factors, the researchers have investigated GSTM1, GSTT1, GSTP1 gene polymorphisms. Four groups were defined: group I (n = 52), children with Down syndrome; group II (n = 70), healthy children; group III (n = 52), mothers of the children with Down syndrome; and group IV (n = 69), mothers of the healthy children. Genomic DNA was extracted from the white blood cells and GenID ® GmbH kit used for GST M1, T1 and P1 gene amplification to determine polymorphisms. The researchers did not detect any significant difference in the allele frequencies between groups I and II, nor groups III and IV. The data indicated no relationship between detected GST polymorphisms, neither with Down syndrome nor with the risk of having an infant with Down syndrome.