



## Acetylation genotype and phenotype in patients with systemic lupus erythematosus

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### Abstract:

Systemic lupus erythematosus (SLE) is a chronic autoimmune disease affecting various tissues and organs. In the studies on SLE etiopathogenesis, a potential role of genetically determined impairment of xenobiotic metabolism has been emphasized. *N*-acetyltransferase 2 enzyme (NAT2) exhibits gene polymorphism and the acetylation rate with NAT2 involvement varies from person to person.

The study on acetylation phenotype was carried out using isonicotinic acid hydrazide (isoniazid) as a model drug, while *NAT2* alleles were determined by the polymerase chain reaction–restriction fragment length polymorphism (PCR-RFLP) assays. Among patients with SLE, *NAT2*\*4/*NAT2*\*6 and *NAT2*\*5/*NAT2*\*5 genotypes occurred most frequently, while *NAT2*\*4/*NAT2*\*6 and *NAT2*\*5/*NAT2*\*6 prevailed in the control group. The concordance of 96.8% was achieved between acetylation phenotype and *NAT2* genotype in the group of SLE patients studied.

Conclusion: Acetylation polymorphism appears not to be an important risk factor in SLE.

### Key words:

*N*-acetyltransferase 2, polymorphism, systemic lupus erythematosus

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