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The C677 Mutation in Methylene Tetrahydrofolate Reductase -correlation with Uric Acid and Cardiovascular Risk Factors in Elderly Korean Men

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The C677T mutation in the methylene tetrahydrofolate reductase (MTHFR) gene results in elevated homocysteine levels and, presumably, in increased cardiovascular risk. Increased homocysteine levels are reportedly associated with high serum uric acid levels. We evaluated MTHFR genotype and a panel of variables in a sample of 327 elderly Korean men (age range 40-81 years; mean, 51.87). Biochemical, hematological variables and lifestyle characteristics were investigated. This study results showed mutation of the MTHFR gene may be a risk for hyperuricemia. The mean uric acid levels for the C/C, C/T and T/T genotypes were 5.54, 5.91 and 6.33 ㎎/㎗, respectively (P=0.000). The T/T genotype was more frequent in subjects with high uric acid levels than in those with low uric acid levels (P=0.003). The mutation of the MTHFR gene is implicated as a risk factor for hyperuricemia in elderly Korean men. However, the relationship between the MTHFR mutation and uric acid metabolism remains unclear.Therefore, the further studies are necessary to determine why the MTHFR mutation is elevated uric acid levels, and correlation of conventional cardioovascular risk factors.