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MTHFR A1298C polymorphism not linked to MTX outcomes in RA

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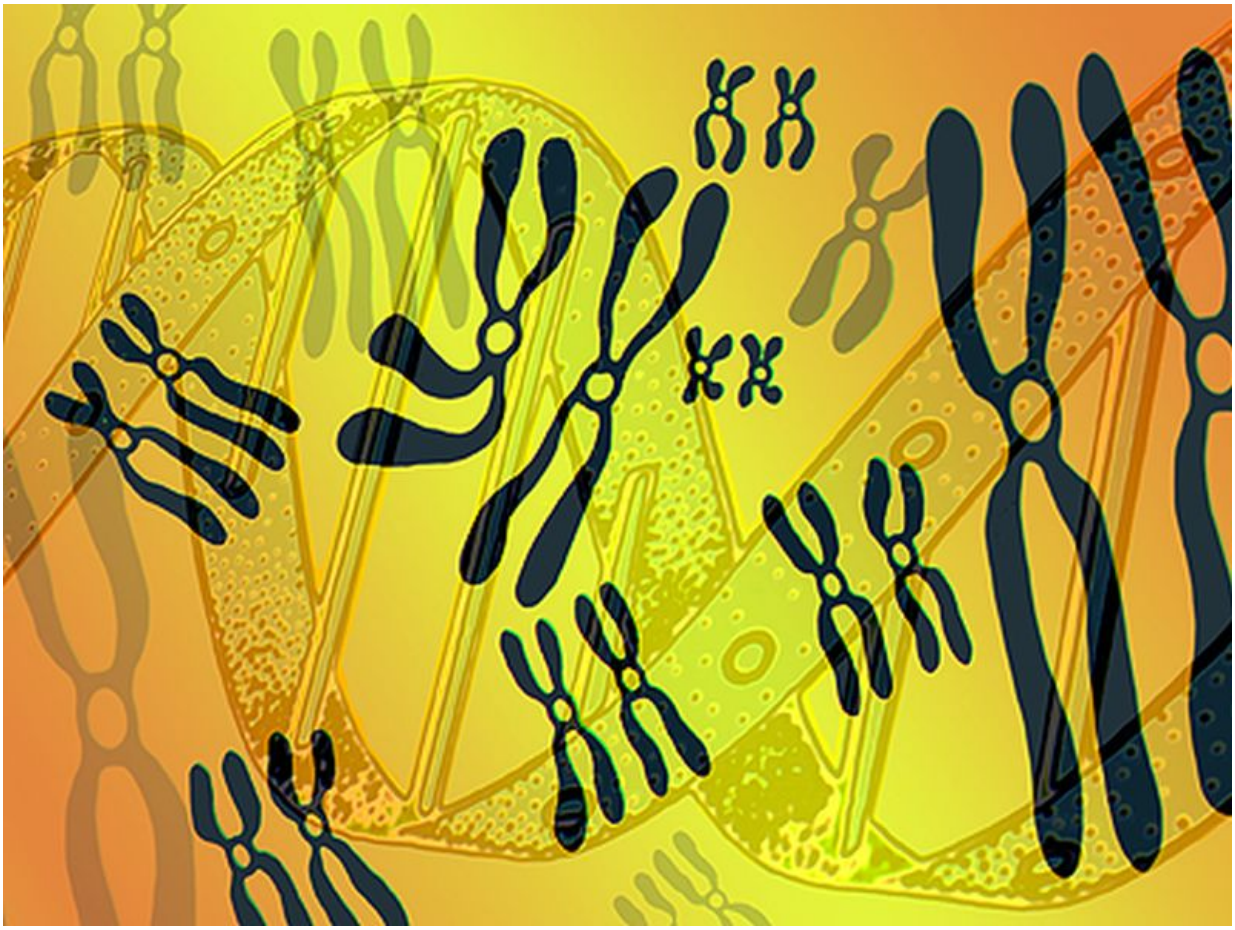

(HealthDay)—The *methylene tetrahydrofolate reductase* (*MTHFR*) gene

A1298C polymorphism does not appear to be related to methotrexate (MTX) efficacy or toxicity in patients with rheumatoid arthritis (RA), according to a meta-analysis published online May 25 in the *International Journal of Rheumatic Diseases*.

Hongqiong Fan, from the First Hospital of Jilin University in Changchun, China, and colleagues conducted a meta-analysis of the existing literature to examine the association of *MTHFR* gene A1298C polymorphism and MTX outcome in RA. They analyzed 1,325 cases (10 studies) of MTX efficacy and 2,777 cases (18 studies) of MTX toxicity in RA patients.

The researchers observed no significant correlation for *MTHFR* gene A1298C polymorphism with MTX efficacy or toxicity. In subgroup analysis there was a significant correlation in the South Asian population for *MTHFR* gene A1298C polymorphism and decreased MTX efficacy (CC versus CA + AA: odds ratio, 0.45). In the partial folate supplementation group there was a correlation for *MTHFR* gene A1298C polymorphism with decreased MTX efficacy (CC versus CA + AA: odds ratio, 0.43) and toxicity (CC versus CA + AA: odds ratio, 0.40; CC versus AA: odds ratio, 0.38).

"Overall, our meta-analysis suggested no significant effect of *MTHFR* gene A1298C polymorphism on MTX outcome in RA patients," the authors write. "However, due to several limitations of our meta-analysis, the results should be interpreted cautiously and require further confirmation using high-quality studies."

More information: Abstract
Full Text (subscription or payment may be required)