Genotype-guided antiplatelet therapy feasible, effective

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(HealthDay)—Using CYP2C19 genotype-guided dual antiplatelet therapy (DAPT) selection is feasible in a real-world setting, although frequency of testing may be difficult to maintain, according to a study published online April 3 in *Circulation: Genomic and Precision Medicine*.

Craig R. Lee, Pharm.D., Ph.D., from the University of North Carolina at Chapel Hill, and colleagues assessed the feasibility, sustainability, and clinical impact of using CYP2C19 genotype-guided DAPT selection among 1,193 patients who underwent percutaneous coronary intervention.

The researchers found that a CYP2C19 genotype was obtained in 72.8 percent of patients. Among loss-of-function (LOF) allele carriers, alternative DAPT was prescribed in 70.7 percent of patients. In LOF carriers prescribed clopidogrel rather than alternative DAPT, the risk of major adverse cardiovascular or cerebrovascular events was significantly higher (adjusted hazard ratio, 4.65; 95 percent confidence interval, 2.22 to 10.0; P adverse events (adjusted hazard ratio, 1.37; 95 percent confidence interval, 0.72 to 2.85; P = 0.347). Across groups, bleeding event rates were similar (P = 0.816).

"The higher risk of major adverse cardiovascular or cerebrovascular associated with clopidogrel use in CYP2C19 LOF allele carriers suggests that use of genotype-guided
DAPT in practice may improve clinical outcomes," the authors write.

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