ACC: Faster absorption of crushed prasugrel in STEMI

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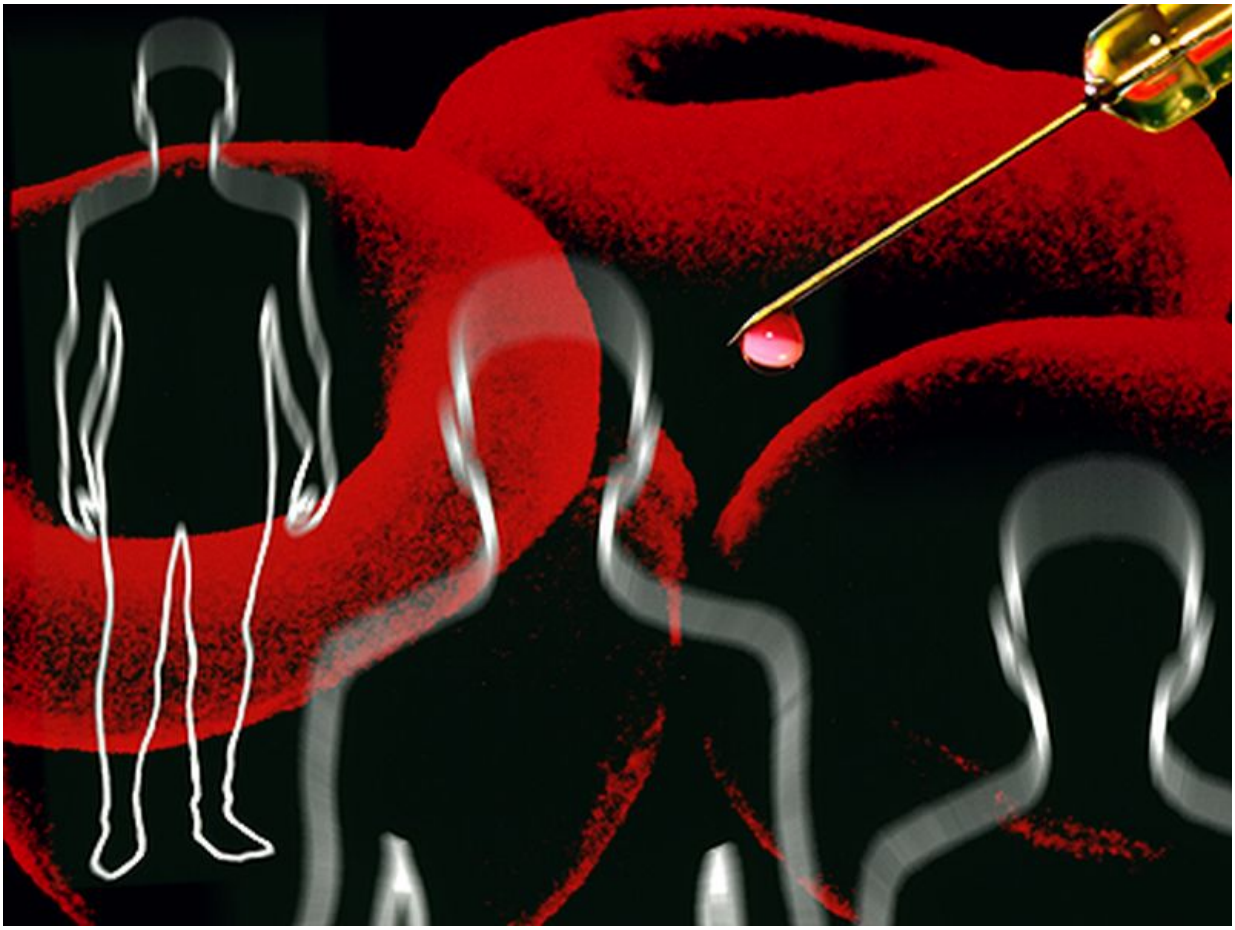

(HealthDay)—Crushed prasugrel correlates with faster drug absorption

for patients with ST-segment elevation myocardial infarction (STEMI) undergoing primary percutaneous coronary intervention (PPCI), according to a study published online March 21 in the *Journal of the American College of Cardiology*. The research will also be presented at the upcoming annual meeting of the American College of Cardiology, to be held from April 2 to 4 in Chicago.

Fabiana Rollini, M.D., from the University of Florida College of Medicine-Jacksonville, and colleagues examined whether crushing prasugrel correlated with more favorable drug bioavailability and platelet inhibitory effects compared with whole tablets. Fifty-two STEMI patients undergoing PPCI were randomized to treatment with prasugrel 60-mg loading dose (LD) as whole or crushed tablets.

The researchers found that crushed prasugrel led to a reduction in pharmacodynamics, as measured by reduced $P2Y_{12}$ reaction units by 30 minutes post-LD, compared with whole tablets; the effect persisted at one, two, and four hours post-LD. At six hours post-LD, significant differences were no longer present. Findings with platelet reactivity index were parallel; high on-treatment platelet reactivity rates decreased with crushed prasugrel. In pharmacokinetic analyses, absorption was increased more than three-fold with crushed versus whole prasugrel.

"In STEMI patients undergoing PPCI, crushed prasugrel leads to faster drug absorption, and consequently, more prompt and potent antiplatelet effects compared with whole tablet ingestion," the authors write.

Several authors disclosed financial ties to pharmaceutical companies, including Daiichi Sankyo and Eli Lilly, both of which funded the study.

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