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Risk of Bleeding Among Patients Taking Two Anti-Platelet Drugs

Dual antiplatelet therapy -- treatment with the medications clopidogrel and aspirin together to prevent blood clots -- poses a clinically significant risk of hemorrhage that should be considered before prescribing, according to a report in the November 22, issue of Archives of Internal Medicine.

Dual antiplatelet therapy with clopidogrel plus aspirin is commonly used to prevent blood clots in patients with cardiovascular disease, according to background information in the article. The treatment has demonstrated a benefit in reducing the formation of clots in stents and also in preventing blocked blood vessels in patients, who have had a heart attack or other form of acute coronary syndrome. Although warfarin remains the standard of care for treatment of a wide variety of clot-related conditions, the strategy of dual antiplatelet therapy has gained increased attention as an alternative for some patients.

Nadine Shehab, Pharm.D., M.P.H., of the Centers for Disease Control and Prevention, Atlanta, and colleagues used national databases to identify emergency department visits for hemorrhage-related adverse events from either dual antiplatelet therapy or warfarin between 2006 and 2008.

The researchers identified 384 annual emergency department visits for hemorrhage-related adverse events among patients taking dual antiplatelet therapy and 2,926 annual visits for those taking warfarin. Approximately, 60 percent of emergency department visits for dual antiplatelet therapy consisted of epistaxis (nosebleeds) or minor hemorrhages. The estimated rate of emergency department visits was 1.2 per 1,000 outpatient prescription visits among patients taking dual antiplatelet therapy compared with 2.5 per 1,000 outpatient prescription visits taking warfarin.

"Although we found the overall risk of hemorrhage-related emergency department visits to be three-fold higher for warfarin than for clopidogrel plus aspirin, a little more than one-half of the emergency department visits for acute hemorrhages due to warfarin were composed of minor hemorrhages and one-quarter of warfarin-related emergency department visits, overall, were for elevation of laboratory coagulation variables without documentation of hemorrhage," the authors write. When only documented hemorrhages were considered, the risk of an emergency department visit was only doubled (rather than tripled) among warfarin users compared with those taking clopidogrel plus aspirin.

"The beneficial role of dual antiplatelet therapy is well established in patients with acute coronary syndromes and may potentially expand to a subset of patients with atrial fibrillation," the authors conclude. "Ultimately, for each patient, the hemorrhagic risk associated with dual antiplatelet therapy will be determined by his or her specific demographic and clinical risk factors, underlying diagnosis, treatment setting and quality of clinical care. Broadly, however, these nationally representative findings on adverse events indicate that the hemorrhagic risk of clopidogrel plus aspirin therapy is substantial and suggest a need to approach that risk with vigilance."