Dual antiplatelet therapy following coronary stent implantation is associated with improved outcomes

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Emmanouil S. Brilakis, M.D., Ph.D., of the VA North Texas Health Care System and University of Texas Southwestern Medical Center at Dallas, and colleagues conducted a review of medical literature regarding optimal medical therapy after percutaneous coronary intervention (PCI; procedures such as balloon angioplasty or stent placement used to open narrowed coronary arteries). The researchers identified 91 studies for inclusion in the review.

"Percutaneous coronary intervention is commonly performed for coronary revascularization in patients with stable angina or acute coronary syndromes (ACS), with approximately 600,000 procedures performed in the United States during 2009," according to background information in the article. Stents are currently used in more than 90 percent of patients undergoing PCI because they significantly improve procedural success and subsequent clinical outcomes. The main complications after stent implantation are in-stent restenosis (renarrowing) and stent thrombosis (formation of a blood clot). "The goal of medical treatment after coronary stenting is to prevent stent thrombosis, slow the progression of coronary artery disease, and prevent major adverse cardiac events."

The researchers found that dual antiplatelet therapy with aspirin and a P2Y12 inhibitor (e.g., ticlopidine, clopidogrel, prasugref, ticagrelor) is associated with significant improvement in the outcomes of patients

undergoing coronary stenting and remains the main medical therapy for optimizing stent-related outcomes after PCI and stent placement. Aspirin should be continued indefinitely and low dose (75-100 mg daily) is preferred over higher doses. A P2Y12 inhibitor should be administered for 12 months after PCI unless the patient is at high risk for bleeding.

"Several ongoing studies will allow further optimization of the medical management of patients who receive coronary stents."

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