Bleeding in year after ACS significantly associated with mortality

ACP Hospitalist Weekly Staff

In the year after acute coronary syndrome (ACS), bleeding was associated with similar risk of death as myocardial infarction, according to a recent study that included patients who did and didn't undergo percutaneous coronary intervention (PCI).

Researchers used a harmonized dataset of four multicenter randomized trials that had compared antithrombotic strategies in patients with ACS to examine the association between postdischarge bleeding and subsequent all-cause mortality. Bleeding was defined as moderate, severe, or life-threatening bleeding, according to Global Use of Strategies to Open Occluded Coronary Arteries, that occurred at least a week after ACS. The results were published by the *Journal of the American College of Cardiology* on July 6.

Of the 45,011 participants, 1,133 had postdischarge bleeding (2.6 events per 100 patient-years), and 2,149 died during follow-up. Patients who had bleeding then had significantly increased risk for mortality both within 30 days (adjusted hazard ratio [HR], 15.7; 95% CI, 12.3 to 20.0) and from 30 days to 12 months (adjusted HR, 2.7; 95% CI, 2.1 to 3.4), regardless of whether they had undergone PCI for their index ACS. This risk for mortality, and its time dependence, was similar to that of patients who had a myocardial infarction after ACS.

"Given their similar impact on patients' prognosis, bleeding avoidance after PCI is as critical as prevention of recurrent ischemic events," the study authors said. The study also showed the importance of bleeding prevention in patients who don't undergo PCI, whom the authors described as "a vulnerable, understudied group representing a substantial proportion of patients with ACS encountered in routine clinical practice." They noted that guidance and evidence in this population are limited but suggested that "a pragmatic interpretation of our findings is that bleeding avoidance strategies tested in PCI populations, including short-term [dual antiplatelet therapy] or aspirin-free strategies, should also be considered in medically treated patients with ACS deemed at higher risk for bleeding."

Both the study authors and those of an accompanying editorial highlighted the increased mortality risk in the first 30 days after bleeding as an important finding. The editorial also pointed out that recurrent myocardial infarction occurred almost three times as often as bleeding among study patients. The editorialists also suggested that research in this area should look at outcomes other than all-cause mortality, such as quality-of-life measures. "Appropriately weighing the risk for future bleeding and ischemic events appears to be the 'Gordian knot' in the optimized use of antithrombotic therapies post-ACS," they wrote.