Factors Associated with Gastrointestinal Complications during Dual Antiplatelet Therapy in Patients with Acute Coronary Syndrome

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Background: Dual antiplatelet therapy (DAPT) with aspirin plus P2Y12 inhibitor is recommended at least 12 months for patients with acute coronary syndrome (ACS).

Objective: This study aimed to identify factors associated with gastrointestinal (GI) complication in individual patients during DAPT treatment in the post-ACS setting.

Methods: For factors associated with GI complication, we collected data from medical records during the period from July 2014 to June 2016 of patients with ACS who were treated with DAPT for at least 12 months and had GI complication during treatment.

Results: We collected data of 230 patients with ACS who used DAPT for at least 12 months. A total of 23 patients had GI complication (11 female and 12 male). Baseline characteristics were previous hypertension (6.5%), diabetes (3.9%), chronic kidney disease with glomerular filtration rate less than 60 percent (7.4%), and heart failure (3.9%), with average age of over 60 years (10%). Factors associated with GI complication after using DAPT for 12 months were age over 60 years (odd ratio 2.85; 95% confidence interval, 1.12 to 7.23; P=0.02), hypertension (odd ratio 2.58; 95% confidence interval, 0.07 to 0.46; P=0.02), diabetes (odd ratio 2.49; 95% confidence interval, 0.15 to 0.90; P=0.03), HF (odd ratio 2.52; 95% confidence interval, 1.02 to 6.23; P=0.04), chronic kidney disease with GFR <60 mg/dl (odd ratio 2.97; 95% confidence interval, 1.12 to 7.84; P=0.02), and aspirin dosage greater than 81mg/day (odd ratio 4.28; 95% confidence interval, 1.02 to 17.88; P=0.04). The most common GI complication was upper-GI bleeding (6.9 percent), and EGD results were non-erosive gastritis (1.7 percent) and atrophic gastritis (0.8 percent).

Conclusion: GI complication during treatment with DAPT for at least 12 months in patients with ACS is related to age over 60 years, hypertension, diabetes, HF, chronic kidney disease with GFR <60 mg/dl, and aspirin dosage >81mg/day.

Keywords: Acute coronary syndrome, Gastrointestinal complication, Dual antiplatelet therapy