Bleeding Risk of Taking Triple Antithrombotic Therapy in Patients with Atrial Fibrillation and Peripheral Obstructive Arterial Disease

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Introduction: Triple antithrombotic therapy (TAT) with oral anticoagulation (OAC) and dual antiplatelet therapy produces a high bleeding risk in patients with atrial fibrillation (AF) and undergoing percutaneous coronary intervention (PCI). Endovascular treatment (EVT) for peripheral obstructive artery disease (PAD) is becoming popular, and AF patients who had PAD require plural antithrombotic drugs. We investigated the bleeding risk of taking TAT in patients with AF and PAD.

Methods: One hundred twenty patients who had EVT were studied (74 males, 75±10 years, 27 with AF). Clinical factors, transthoracic echocardiography and blood samples were obtained before EVT.

Result: Twelve of 27 patients (44%) with AF had TAT. Bleeding events were observed in 14/120 patients (4 cerebral hemorrhage, 5 gastrointestinal bleeding, 5 other minor bleeding) during the follow-up period (27±21months). Univariate analysis revealed that history of myocardial infarction (46% vs 13%, P=0.0119), larger left atrial diameter (47±9 vs 42±7, P=0.0465), higher CHA2DS2-VASc score (5.1±1.1 vs 4.3±1.4, P=0.0433) and triple therapy {29 % (4/14) vs 10 % (11/106), P=0.0746} were related to bleeding events, while re-EVT/re-stenosis were not related with TAT. On multivariate analysis, history of myocardial infarction (P=0.0349 OR 5.7429 95%CI: 1.1337-31.9239) only was independently associated with bleeding events. There were no differences in the total number of antithrombotic drugs between patients with and without AF (2.2±0.9 vs 2.0±0.6, P=0.1182).

Conclusion: TAT was not related with bleeding events in patients who underwent EVT for PAD. At the clinical site, the number of antithrombotic drugs is well adjusted, however caution of bleeding events is necessary in patients with history of myocardial infarction/PCI.