

Atrial fibrillation and percutaneous coronary intervention: Are newer antithrombotic agents better for older patients?

To the Editor,

In their informative and well-performed landmark review entitled "Efficacy and safety of oral anticoagulation in elderly patients with atrial fibrillation" recently published in the *Anatol J Cardiol* 2018; 19: 67-71, Cavallari and Patti (1) summarized current evidence regarding the risks of thromboembolism and bleeding in different antithrombotic strategies in elderly patients (aged ≥ 75 years) with atrial fibrillation, including data from the warfarin-controlled non-vitamin-K antagonist oral anticoagulants (i.e., RE-LY, ROCKET-AF, ARISTOTLE, and ENGAGE AF-TIMI48 trials) (1). Because the increase in the risk of stroke with age is higher than that in the risk of bleeding, the absolute benefit of oral anticoagulation is the highest in very old patients, where it outweighs the risk of bleeding by far with the greatest net clinical benefit in such patients. Consequently, we completely agree with the authors that the introduction of non-vitamin-K antagonist oral anticoagulants may offer a safer alternative to warfarin, particularly in older patients, in whom the fear of bleeding has led to the underuse of anticoagulation in the past (1).

Another one of the most common conundrums in all cardiovascular medicine pertains to the care of patients with atrial fibrillation after percutaneous coronary intervention because of both dual antiplatelet and oral anticoagulant therapies would seem to be necessary to reduce the risks of stent thrombosis and thromboembolism, respectively (2), but also with an inevitable tradeoff with more bleeding (3). The management of atrial fibrillation in patients who undergo percutaneous coronary intervention for the treatment of coronary artery disease is not only a difficult but also a common challenge. In patients with atrial fibrillation, oral anticoagulation is administered to reduce the risk of stroke. In patients who have undergone percutaneous coronary intervention, dual antiplatelet therapy is administered to prevent major adverse cardiovascular events and stent thrombosis. As such, when it comes to managing a patient with atrial fibrillation undergoing percutaneous coronary intervention, the combination of dual antiplatelet therapy and oral anticoagulation (commonly referred to as "triple therapy") constitutes the therapeutic option to ensure both coronary and cerebral protection, received by one in four older patients.

Then again, life expectancy has increased in the western world, and more elderly patients now undergo percutaneous coronary intervention with stent implantation. Very few data exist on the optimal antithrombotic regimen in older patients with

atrial fibrillation who need lifelong oral anticoagulation and undergo percutaneous coronary intervention. Such unanswered questions include the duration of each antithrombotic medication and the change in antithrombotic regimen over time; nonetheless, in both the recent PIONEER AF-PCI and RE-DUAL PCI trials, the patients mean age was ≥ 70 years (4, 5). Hence, while waiting for more evidence and real-world data (e.g., subgroup analyses, meta-analyses, large registries with long-term follow-up, and a high number of accrued events), it could be hypothesized that the choice of proper, safer, oral anticoagulant, namely a non-vitamin K-antagonist oral anticoagulant, may be regarded as an effective strategy to avoid additional bleeding and to optimize antithrombotic regimen in this particularly high-risk group of older patients with atrial fibrillation undergoing percutaneous coronary intervention.

Massimo Leggio, Augusto Fusco¹, Stefania D'Emidio¹, Paolo Severi¹, Maria Grazia Bendini², Andrea Mazza²

Department of Medicine and Rehabilitation, Cardiac Rehabilitation Operative Unit, San Filippo Neri Hospital-Salus Infirmorum Clinic; Rome-Italy

¹Physical Medicine and Neurorehabilitation Operative Unit, Salus Infirmorum Clinic; Rome-Italy

²Division of Cardiology, Santa Maria della Stella Hospital; Orvieto-Italy

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Address for Correspondence: Massimo Leggio, MD, PhD,
Department of Medicine and Rehabilitation,
Cardiac Rehabilitation Operative Unit,
San Filippo Neri Hospital-Salus Infirmorum Clinic,
Via della Lucchina 41, 00135
Rome-Italy

Phone: +3906302511

Fax: +390630811972

E-mail: mleggio@libero.it

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DOI:10.14744/AnatolJCardiol.2018.57804

