

Editorial

Antithrombotic Therapy in Cardiovascular and Haematological Diseases: New Perspectives

In the last decade, a number of new antithrombotic therapies as well as new approaches have been appearing for the management of patients with or at risk for arterial and venous thrombosis. Considering new drugs, direct thrombin inhibitors (dabigatran etexilate) or Factor Xa inhibitors (rivaroxaban and apixaban) are now available for the prophylaxis for venous thromboembolism (VTE) during orthopedic procedures. Hopefully soon, new oral anticoagulants (dabigatran etexilate) will replace warfarin in the prevention of stroke in patients with chronic atrial fibrillation (AF). What are the advantages of these new drugs over warfarin? Mainly, they do not need laboratory monitoring, since direct thrombin or factor Xa inhibitors are administered at fixed doses. Some investigations showed also a greater efficacy without increasing the risk for bleeding; however, most of the studies were designed as non-inferiority trials, therefore strong conclusions about their superiority are not easy to attempt.

In this issue, all the most relevant topics on new approaches for the management of arterial and venous thrombosis are discussed. Dr. Douketis [1] analyses the pharmacological profiles of the new anticoagulants and, very interestingly, implications for their use during perioperative management. This topic is still debated in patients who receive warfarin and several approaches have been published. Dr. Lyp *et* coworkers [2, 3] addressed in two papers new issues related to arterial thrombosis. Particularly, Dr. Butt [2] evaluated the role of endothelial dysfunction as a marker for cardiovascular diseases, while Dr. Potpara [3] highlighted the strategies and future perspectives for the prevention of arterial thromboembolism in patients with AF. New issues on VTE were analyzed by Dr. Lepic and Dr. Garcia [4, 5]. The first author reports on new anticoagulants for the prevention of venous thrombosis during orthopedic surgery [4], a population at high-risk for post-operative Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE) in whom heparin antithrombotic prophylaxis can be further ameliorate in terms of efficacy. Dr. Garcia analyzed the new oral anticoagulants for the treatment of DVT and PE, highlighting the potential advantages over coumarin specially in case of long-term treatment [5]. Dr. Romualdi addressed a very important topic: how to manage anticoagulated patients receiving warfarin or the new thrombin or factorXa inhibitors [6]. This topic is extremely important, especially in case of therapy with the new anticoagulants, since they do not have a specific antagonist. Along with new drugs, new approaches to establishing the individual risk for recurrent VTE are discussed. Malato *et al.* briefly analyzes the use of well reproducible markers as D-dimer (D-d) and detection of residual vein thrombosis (RVT) that has been demonstrated to drive the optimal duration of oral anticoagulants in patients with a first episode of DVT [7]. Finally, Dr. Huisman explores the potential advantages of administering new anticoagulants in settings, where indications are still under evaluation or await for approval or areas, where these novel drugs have not yet been evaluated [8]. In the last two review Fazio *et al.* analyzed the importance of thrombotic complications in the presence of PFO or in patients that used some oral contraceptives [9-10].

In general, this issue furnishes a comprehensive framework of the most recent approaches for the management of patients with or at high-risk for venous or arterial thrombosis

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