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Chapter

Introductory Chapter: Anticoagulant Therapy in Clinical Practice - Challenges and Wishes

Mina T. Kelleni

1. Introduction

Since the discovery of heparin in 1915, anticoagulant drugs have played a vital role in prophylaxis of deep vein thrombosis and pulmonary thromboembolism among other important indications, and for more than six decades, both heparin and coumarins especially warfarin have been the principal drugs used for anticoagulation worldwide [1, 2]. In the mid-1970s and the 1980s, several low-molecular-weight heparins have been clinically trialed and commercialized, and over the past few decades, parenteral direct thrombin inhibitors (DTIs) (e.g., argatroban, bivalirudin), oral DTIs (e.g., dabigatran), and oral direct factor Xa inhibitors (e.g., rivaroxaban) have also been introduced into the clinical practice to cope with the growing use of anticoagulants in medicine [1, 3, 4].

The clinical practice involving the use of anticoagulants, e.g., dosing, timing, and managing complications, has been a real challenge even to some of the best experts in the field mainly due to their potential to cause serious adverse effects, both hemorrhagic and nonhemorrhagic which may occur with all the currently used anticoagulants regardless of their year of discovery [2, 5–8].

Thus, in this book you'll find experts' opinion providing state-of-art knowledge regarding current clinical usage and monitoring of anticoagulant therapy. It discusses some very critical subjects like the mechanism and heterogenic presentation of heparin-induced thrombocytopenia, laboratory monitoring of heparin anticoagulants, quality of life among patients, as well as an updated pharmacological review of the currently used anticoagulants and their antidotes. Our main aim is to improve the clinical practice of all physicians and healthcare providers who are dealing with anticoagulants as well as to present an added value to the current literature discussing the complications experienced while using anticoagulants. We're still waiting for the synthesis of an ideal or almost ideal anticoagulant which combines both efficacy and lack of serious adverse effects [9].

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