Low-molecular-weight heparins in prophylaxis and therapy of thromboembolic diseases


The advent of low-molecular weight (LMW) heparins has generated considerable excitement in all fields of medicine. The book *Low-Molecular-Weight Heparins in Prophylaxis and Therapy of Thromboembolic Disease* is a thorough introduction to these remarkable therapeutic agents.

LMW heparins are derived from standard heparin by chemical means. These lower-weight fractions have multiple advantages over standard heparin, including less platelet interactions, improved pharmacokinetics, improved safety, standard dosing, and even a potential anticancer effect. Although most of the published clinical research has concerned use of LMW heparins in prophylaxis of deep venous thrombosis, the appeal of outpatient therapy has engendered enthusiasm concerning the use of LMW in therapy of thrombosis.

The first part of this book is an introduction to basic issues concerning all LMW heparins, including the problems raised in measuring plasma levels, given that most LMW heparins do not raise the activated partial thromboplastin time. A highlight of this text is Drs. Warkentin and Kelton's chapter on the interaction of heparin with platelets. This chapter is an excellent review of heparin-induced thrombocytopenia (HIT) by two leaders in the field. They emphasize the fact that, although the incidence of HIT may decreased with LMW heparin, LMW heparin cannot be used in patients with established HIT because of cross-reactivity between the two agents. One can use heparinoids that, like heparin, act as a cofactor for antithrombin III but do not (in most patients) cross-react with HIT antibodies.

The major part of the book is a compendium of clinical trials of LMW heparins for a variety of clinical situations. Most clinical trials have been for prophylaxis of deep venous thrombosis. All the chapters attempt to summarize and place in perspective the multitude of trials performed with LMW heparins. These data document the evidence of the usefulness of LMW heparin in all types of patients. These compounds have been especially useful in patients undergoing orthopedic surgery because the compounds are easier to dose and use than adjusted-dose heparin or warfarin. These chapters are a valuable resource for anyone wanting to research the uses of LMW heparins.

The most exciting use of LMW heparins is as therapy for established thrombosis. The few trials performed to date show both a reduction in hemorrhagic complications and a reduction in the overall mortality rate in patients with cancer.

This book deals frankly with the remaining questions concerning LMW heparin. In the era of short hospital stays, the problem of outpatient deep venous thrombosis is increasing, and this may be another prophylactic role for LMW heparins. Despite the many trials performed with LMW, very few have tested different LMW heparins head-to-head. This raises the fear that soon the clinician will be faced with multiple LMW heparins to choose from, all for the same problem. This is a situation not unlike cephalosporin antibiotics or beta-blockers.

I highly recommend this book to any physician seeking additional knowledge about these agents and their potential use.

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Stroke: Populations, cohorts, and clinical traits

This book has contributions from a variety of authors who are neurologists, epidemiologists, rehabilitation experts, and biostatisticians, and the contributions come from North America, New Zealand, and Japan, with a couple of contributions from Scandinavia.

The title topic is timely for vascular surgeons who must now show an interest in clinical trials in stroke and so must understand population methods, cohorts, and selections for trials and methods by which the results are claimed. Not least the vascular surgeon needs to be able to assess the validity of claims from these trials. The book is an excellent source of references for the surgeon interested in the performance of carotid and vertebral artery surgery, but the book does not read easily in chapters, such as Chapter 7 on attributal risk. Chapters such as those on natural history of transient ischemic and ischemic stroke by the editor are extremely useful background information for the vascular surgeon.

On balance, this is not really a book for vascular surgeons, but one that they would appreciate seeing in a library for occasional reference.

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General surgery

It was the intent of the editors to provide the reader of this text a book that might be considered "no-nonsense general surgery." As such this is a clinical text that focuses on the important problems commonly treated by the practicing general surgeon. Herein one will not find...
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