Low-molecular-weight heparin for thromboprophylaxis

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Purpose of review

Venous thromboembolism represents a potentially threatening complication in surgical and medical patients. Thromboprophylaxis showed a significant reduction of venous thromboembolic events, and low-molecular-weight heparins have been considered the standardized prophylactic regimen for a long time. The purpose of this review is to provide updated evidence on the use of low-molecular-weight heparins for prevention of venous thromboembolism after the publication of the latest American College of Chest Physicians Evidence-Based Clinical Practice Guidelines on antithrombotic and thrombolytic therapy.

Recent findings

Low-molecular-weight heparins, used as comparator or investigational drug, have been investigated in several studies not included in the analysis of the latest American College of Chest Physicians Guidelines on Antithrombotic and Thrombolytic Therapy. Data gathered from studies published from December 2007 up to May 2009 dealing with surgical and medical patients have been collected and discussed.

Summary

Low-molecular-weight heparins are expanding their application, but progressively they will be replaced by other new antithrombotics for the prophylaxis of venous thromboembolism. Surgical patients undergo a more concerted approach to thromboprophylaxis than medical patients. Future research should aim at improving prophylaxis in the latter setting in order to significantly reduce the rate of venous thromboembolic events.

Keywords

low-molecular-weight heparin, thromboprophylaxis, venous thromboembolism