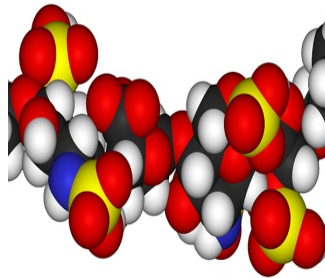


## Venous Thromboembolism Treatments Compared



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According to a study published in JAMA, there is no significant difference in the clinical and safety outcomes associated with most treatment strategies for venous thromboembolism, a common medical condition manifested as deep vein thrombosis or pulmonary embolism. Venous thromboembolism is the third leading cause of cardiovascular death.

There are several treatment options for the management of this condition. During this study, Lana A. Castellucci, MD, and colleagues at the Ottawa Hospital Research Institute, University of Ottawa (Ontario, Canada) conducted a network meta-analysis to compare the efficacy and safety outcomes for its treatment. Eight coagulation options were included in this analysis. These included: unfractionated heparin [UFH], low-molecular-weight heparin [LMWH], or fondaparinux in combination with vitamin K antagonists; LMWH with dabigatran or edoxaban; rivaroxaban; apixaban; and LMWH alone.

The study researchers conducted a comprehensive analysis of medical literature and identified 45 randomised trials comprising 44,989 patients that were included in the analysis. The results showed that patients using the UFH-vitamin K antagonist combination had a higher rate of recurrence during three months of treatment as compared to patients taking the LMWH-vitamin K antagonist combination. The lowest bleeding risk was found with rivaroxaban (0.49 percent) and apixaban (0.28 percent) as compared with LMWH-vitamin K antagonist (0.89 percent) combination, with a lower proportion of patients experiencing a major bleeding event during the three months of anticoagulation. Other treatment options demonstrated similar bleeding risks to the LMWH-vitamin K antagonist combination.

This study is the largest review assessing the clinical outcomes and safety associated with different anticoagulation strategies for the treatment of acute venous thromboembolism and included nearly 45,000 patients. The study provides estimates on symptomatic recurrent venous thromboembolism as well as major bleeding outcomes. The information provided in this study is clinically relevant and provides important clinical guidelines for clinicians. This is especially useful keeping in mind the fact that while there are several treatment options available, very little guidance exists about which treatment option is most effective and safe.

The study authors write, "All management options, with the exception of the UFH-vitamin K antagonist combination, were associated with similar clinical outcomes compared with a management strategy using the LMWH vitamin K antagonist combination. Treatment using the UFH-vitamin K antagonist combination was associated with a higher risk of recurrent venous thromboembolism during the follow-up period."

Source: JAMA

Image Credit: Wikimedia Commons

Published on : Tue, 16 Sep 2014