Risk of VTE recurrence and major bleeding in patients with cancer younger than 65 years

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Video Abstract

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Abstract

Anticoagulation is the cornerstone of therapy for venous thromboembolism, or VTE, in cancer patients, but it may also cause bleeding. Recent studies examining the frequency of these events have primarily focused on the elderly population. A new report in the American Journal of Hematology aimed to take a closer look at the effects of the drugs in younger patients. The work specifically focused on cancer patients who were predominantly under 65 years of age. Researchers evaluated the recurrence of VTE and major bleeding following treatment of a first episode of VTE. Using a retrospective cohort study design, they assessed the outcomes of nearly 14,000 commercially-insured patients initiated on rivaroxaban, warfarin, or low-molecular-weight heparin. Only data from patients with lower extremity deep vein thrombosis and pulmonary embolism were included. Patients were required to have initiated anticoagulation within 7 days of their VTE. VTE recurrence and major bleeding events were monitored during the observation period. Recurrent VTE was defined as a hospitalization with a primary diagnosis of VTE greater than 7 days after the first VTE. The researchers found no significant differences in the incidence of major bleeding among the groups, suggesting that all three drugs present an equivalent risk for this complication. However, rivaroxaban and warfarin appeared to be associated with a lower risk of recurrent VTE than low-molecular-weight heparin. Patients initiated on low-molecular-weight heparin had a 17% and 9% higher risk of recurrence compared to those on rivaroxaban or warfarin, respectively. This discrepancy might be explained by differences in the duration of treatment. The mean duration of treatment was approximately 2 months shorter for those initiated on low-molecular-weight heparin compared to the other groups, suggesting that duration of treatment is an important determinant of an anticoagulant's efficacy. Overall, the results shed light on how cancer patients aged 65 years or younger fare on anticoagulation. Future trials assessing the prevention of VTE with oral anticoagulants are expected to reveal additional considerations for reducing morbidity and mortality associated with anticoagulation.