Preventing Venous Thromboembolism, Especially in Elderly People

In their subgroup analysis of the Prospective Evaluation of Dalteparin Efficacy for Prevention of Venous Thromboembolism (VTE) in Immobilized Patients (PREVENT) Trial on the efficacy and safety of fixed low-dose dalteparin, Kucher et al found that in elderly patients, dalteparin use is associated with a similar relative risk reduction as in younger patients and conclude that a fixed low dose of dalteparin is effective and safe in preventing VTE in elderly hospitalized medical patients.

This study raises 3 comments. First, the absolute thromboembolic risk in this trial is about twice higher in patients 75 years or older compared with younger patients. In fact, 33% (1226/3706) of patients who were 75 years or older account for more than 50% (76/145) of all end point thromboembolic events. We reported a similar figure in patients included in the Medical Patients with Enoxaparin (MEDENOX) Trial. Second, the thromboembolic risk in elderly patients receiving dalteparin was higher than that observed in patients younger than 75 years and receiving placebo: 4.2% vs 3.5%. Although the estimate of the relative risk associated with low-molecular-weight heparin use was similar in the 2 age groups, it was significant in the 1226 patients 75 years or older (relative risk, 0.52; 95% confidence interval, 0.31-0.87) but not in the 2455 patients younger than 75 years (relative risk, 0.61; 95% confidence interval, 0.36-1.03). Third, compared with placebo, dalteparin use was not associated with a significantly higher hemorrhagic risk, whatever the age group.

To conclude, we believe that elderly patients should be the main target of thromboembolic prevention strategies among hospitalized medical patients. Clinical trials are specifically needed in this age group.

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