Venous thromboembolism after stroke: Does race matter?

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Venous thromboembolic disease (VTE), including deep vein thrombosis (DVT) and pulmonary embolism (PE) is the third vascular cause of mortality, with an overall incidence rate around 1.2 per 1000 patient-years in Europe and North America. Whereas in general the incidence of VTE is lower in Asia, it is still a frequent condition particularly in the elderly, and there is evidence of an increase in recent years. VTE is a frequent complication in stroke patients, in particular in those with hemorrhagic events. The risk of VTE after stroke is particularly high during the first 3 months after the event with a hazard ratio of 20 during the first month. Studies in Asian populations are consistent with these findings.

VTE is a leading preventable cause of morbidity and mortality and numerous organizations have developed guidelines consistently recommending to consider primary thromboprophylaxis in patients at high VTE but low bleeding risks. Preferred modalities for thromboprophylaxis include the use of low molecular weight heparin or fondaparinux in low bleeding risk patients and the use of intermittent pneumatic sequential compression devices in patients at high risk. In order to determine both thrombosis and bleeding risks, a number of scores have been developed, many still requiring validation in various populations.

In most patients who develop a VTE and who do not have a high bleeding risk standard treatment with oral anticoagulants, preferably direct oral anticoagulants, can be considered. In contrast, the management of VTE patients at high bleeding risk is challenging and requires a multidisciplinary approach.