

A RISK SCORE FOR PREDICTION OF RECURRENCE IN PATIENTS WITH UNPROVOKED VENOUS THROMBOEMBOLISM (DAMOVES)

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Background:

In patients with unprovoked venous thromboembolism (VTE), the optimal duration of anticoagulation is anchored on estimating the risk of disease recurrence.

Aims:

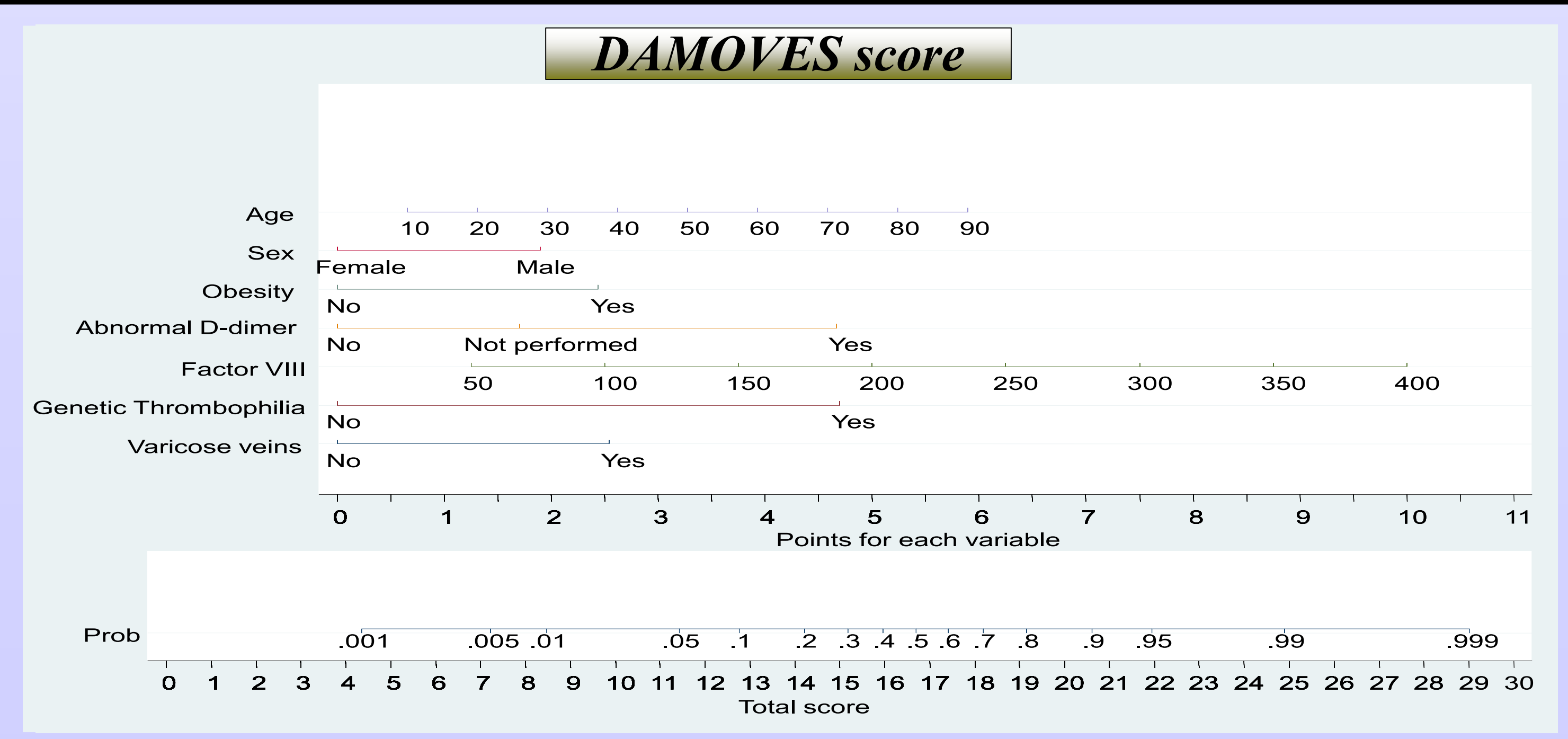
We sought to develop a simple risk score for prediction of the recurrence risk in patients with a first unprovoked VTE.

Methods:

Patients with a first unprovoked VTE were recruited from Hospital de Torrejón and Hospital de Fuenlabrada, between March 2004 and August 2013. They were treated with oral anticoagulants for at least 3 months. We excluded patients with a strong thrombophilic defect. Preselected clinical and laboratory variables were analyzed based of the independent confirmation of the impact on the recurrence risk, simplicity of assessment, and reproducibility. We developed a nomogram to calculate risk score of recurrence in an individual patient.

Results:

In a prospective cohort study 398 patients with a first unprovoked VTE were followed up for a median of 21,3 months after discontinuation of anticoagulation. A total of 65 patients (16.3%) had recurrent VTE. In all patients, VTE recurred spontaneously. Male sex (HR=2.89 [95% CI 1.21–6.90] P=0.016), age (HR=1.0310 per additional decade [95% CI 1.01–1.07] P=0.011), obesity (HR=3.92 [95% CI 1.75–8.75] P=0.0001), varicose veins (HR=4.14 [95% CI 1.81–9.43] P=0.0001), abnormal D-dimer during anticoagulation (HR=13.66 [95% CI 4.74–39.37] P=0.0001), high factor VIII coagulant activity (HR=1.01 [95% CI 1.00–1.02] P=0.028) and heterozygous of factor V Leiden and/or Prothrombin G20210A mutation (HR=13.86 [95% CI 5.87–32.75] P=0.0001) were related to a higher recurrence risk. According to the nomogram [hereafter rreferred to as DAMOVES score (*D-dimer, Age, Mutation, Obesity, Varicose veins, Eight, Sex*)], a score less than 11,5 points was considered a low recurrence risk.



Conclusion:

The DAMOVES prediction model may be useful to decide whether anticoagulant therapy should be continued indefinitely or stopped after an initial treatment period of at least 3 months in patients with a first unprovoked VTE. The model should undergo external validation before it is applied in routine clinical practice.