REVERSE II trial decision rule helps identify women who can safely discontinue anticoagulants

August 30 2016

A clinical decision rule (CDR) that can be applied to women after a first, unprovoked venous thromboembolism (VTE) was able to identify those with a low-risk of recurrence who could safely discontinue anticoagulant therapy, researchers reported at ESC Congress 2016.

The REVERSE II trial, presented in a Hot Line session here, prospectively validated the HERDOO2 rule, making it "the only currently validated CDR to assist clinicians, patients and policy makers to decide who can discontinue anticoagulants after unprovoked VTE," noted study investigator Marc Rodger, MD from the Ottawa Hospital and University of Ottawa, Ontario, Canada.

"This is an important finding as, using our rule, over half of women with unprovoked VTE (meaning VTE with no precipitant), can safely discontinue anticoagulants and be spared the burdens, costs, and risks of lifelong anticoagulation," he added. "Since current consensus guidelines suggest anticoagulants should be continued indefinitely in all patients with unprovoked VTE and non-high bleeding risk, our results are potentially practice-changing."

The HERDOO2 rule is named for the 4 risk factors that must be considered in determining a patient's risk of VTE recurrence:

1. Hyperpigmentation, Edema or Redness in either leg;

2. D-dimer > 250 µg/ml on anticoagulants;
3. Obesity with Body Mass Index (BMI) > 30 kg/m2 ;
4. Older than age 65.

According to this rule, women (but not men) are considered low-risk if they have only one, or none of these risk factors.

The REVERSE II trial tested the HERDOO2 rule in a multi-national trial.

A total of 2,779 patients (mean age 54.4 years) with a first, unprovoked VTE were enrolled in the study, after completing at least 5, and up to 12 months of anticoagulant therapy.

After drop-outs and exclusions, 622 women were considered low-risk, based on HERDOO2 criteria, and the majority of these discontinued anticoagulant therapy.

In addition, most of the 591 high-risk women, as well as 1,534 men, for whom the HERDOO2 rule is not applicable, continued anticoagulant therapy.

After a year of follow-up, low-risk women who had discontinued anticoagulants had 3% rate of recurrent VTE per patient year (the primary outcome), compared to an 8.1% rate in high-risk patients who discontinued. The rate was 1.6% in high-risk patients who continued.

The question of duration of anticoagulation for the prevention of recurrent VTE after a first unprovoked event is controversial, and there are still some unanswered questions, noted Dr. Rodger.

"One is whether indefinite anticoagulation is required for men and high-risk women - and was not the primary focus of our study. The second is

in the sub-group women of post-menopausal women aged 50 and above. In this group, even those who were considered low-risk according to the HERDOO2 rule had a higher than expected rate of recurrent VTE (5.7%) when they discontinued anticoagulants. As such, further validation of HERDOO2 is required in this sub-set of post-menopausal women."

Provided by European Society of Cardiology