Common vein condition increases risk for developing life-threating blood clots

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Patients with clinically diagnosed superficial vein thrombosis (SVT), a blood clot in the veins just beneath the skin that commonly resolves on its own without treatment, are four to six times more likely to develop venous thromboembolism (VTE), a dangerous, often life-threatening condition, according to study results published today in Blood, the Journal of the American Society of Hematology (ASH).

Recent studies have shown that patients diagnosed with SVT using ultrasound to confirm the presence of a clot showed increased risk of VTE; however, it was unclear whether patients with "clinically diagnosed" (without the use of ultrasound) SVT also had an increased risk for VTE.

"While current literature defines 'real' SVT as a disorder diagnosed both clinically and through an ultrasound, in reality, clinical practice does not necessarily follow this model. In fact, most physicians are able to identify SVT by the presence of a red, painful, palpable cord in the course of a patient's superficial vein, for which additional testing with ultrasound is not necessary," said Suzanne C. Cannegieter, MD, PhD, senior study author and Senior Clinical Researcher in the Department of Clinical Epidemiology at Leiden University Medical Center in Leiden, Netherlands.

VTE is a clotting disorder that includes both deep-vein thrombosis (DVT) and pulmonary embolism (PE). DVT is a blood clot that typically forms in the deep veins of the leg and can develop into PE when the clot

breaks free and becomes lodged in a major artery in the lung, blocking blood flow. Symptoms of PE can include sharp chest pain, rapid pulse, shortness of breath, fever, and, in extreme cases, sudden death. While symptoms of DVT can include sudden pain, swelling, and tenderness in the limbs, not everyone with DVT experiences them.

"If an undiagnosed DVT progresses to a PE, the situation can become serious very quickly. Therefore, it is extremely important to understand and recognize the risk factors for DVT," said Dr. Cannegieter.

To determine whether patients with clinically diagnosed SVT are at risk for VTE, study authors from Leiden University Medical Center analyzed questionnaire responses from 4,290 patients with VTE and 5,644 controls without VTE. Study participants were previously enrolled in the MEGA study, a large, population-based, case-control study that assessed VTE risk in nearly 5,000 patients with over 6,000 controls from six anticoagulation clinics in the Netherlands between March 1999 and September 2004. In this particular study, the authors also assessed patients on VTE risk, particularly whether they had SVT before VTE diagnosis or prior to study enrollment. Results from the study analysis revealed that SVT was prevalent in 10 percent of the VTE patients, and in two percent of the control group. All patients with prior SVT were found to be six times more likely to develop DVT and four times more likely to develop PE than controls.

"Our results, which are in line with recent studies that regard SVT diagnosed by ultrasonographs as a precursor of VTE, show that a history of clinically diagnosed SVT is a risk factor for future VTE," said Dr. Cannegieter. "We recommend that clinicians should actively ask patients for a history of clinically diagnosed SVT and use this information in their risk stratisfication analysis. Furthermore, people who experience symptoms of SVT are advised to see a doctor, particularly when these symptoms do not pass or grow worse, as SVT appears not to be a

separate and benign form of venous thrombosis, as previously thought."

Provided by American Society of Hematology