Incidence of Recurrent Venous Thromboembolism at Siriraj Hospital

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**Background:** The recurrent rate of venous thromboembolism (VTE) and bleeding rate from anticoagulant are two important factors for consideration of extended anticoagulation. These rates are mostly from western countries. However, the data of recurrent rate of VTE in Thailand are limited.

**Objective:** To find the incidence of recurrent venous thromboembolism at Siriraj Hospital.

**Methods:** A retrospective chart review was performed. Inclusion criteria were consecutive patients aged 18 years or above with unprovoked deep vein thrombosis and/or pulmonary embolism who received anticoagulant for at least 3 months between 2013 and 2017. Data collection included age, sex, body weight, height, body mass index, duration of anticoagulant, site of deep vein thrombosis and/or pulmonary embolism, D-dimer level at the diagnosis of VTE, D-dimer level at the day stopping anticoagulant and D-dimer level after stopping anticoagulant within 12 months. Primary outcome was the incidence of recurrent unprovoked VTE at 12 months after stopping anticoagulant.

**Results:** A total of 222 patients were included. The incidence of recurrent VTE at 12 months was 3.15 per 100 person-years. Recurrent VTE occurred in 4 of the 71 men (5.6%) and 7 of the 151 women (4.6%). In multivariate analysis, the D-dimer level (after stopping anticoagulant within 3 months) of more than 700 ng/mL was significantly associated with recurrent VTE (OR 9.8, p<0.05). Male sex and body weight of 60 kg or less were associated with recurrent VTE, but not statistically significant (OR=11.4; p>0.05 and OR=11.9; p>0.05, respectively).

**Conclusion:** The incidence of recurrent venous thromboembolism after unprovoked VTE at Siriraj Hospital is 3.15 per 100 person-years. The D-dimer level after stopping anticoagulant within 3 months > 700 ng/mL is a significant risk for recurrent VTE.

**Keywords:** Recurrent venous thromboembolism