

P5587

Elevated D-dimer level after 1 month anticoagulant therapy as a predictor for adverse outcomes in patients with venous thromboembolism: 10-year follow-up results

N.M. Vorobyeva¹, A.B. Dobrovolsky², E.P. Panchenko², E.V. Titaeva², M.B. Karabasheva², S.Y. Yarovoy², N.M. Danilov², A.I. Kirienko³

¹Pirogov Russian National Research Medical University, Russian Clinical and Research Center of Gerontology, Moscow, Russian Federation;

²Russian Cardiology Research & Production Center, Moscow, Russian Federation; ³Pirogov Russian National Research Medical University, Moscow, Russian Federation

Background: Our previous study showed that elevated D-dimer (D-D) level after 1 month of the anticoagulant therapy was an independent predictor of deep vein thrombosis (DVT) recurrences and combined endpoint (DVT recurrence and/or death from any causes) during 18 months. Prognostic value of elevated D-D level after 1 month of the anticoagulant therapy for the long-term venous thromboembolism (VTE) outcomes is unknown.

Purpose: To estimate the elevated D-D level influence after 1 month of the anticoagulant therapy on the 10-year prognosis in VTE pts.

Methods: One hundred and twelve pts (77 men) aged 18–76 (mean 54±14) years with DVT and/or pulmonary embolism were included in the study. Pts received unfractionated or low molecular weight heparin for at least 5 days followed by the long-term warfarin therapy (target international normalized ratio 2,0–3,0). D-D level was measured after 1 month from the start of the anticoagulant therapy by a quantitative assay with an estimated cut-off level of 0,5 ug/ml. The follow-up period was 10 years. Endpoints were VTE recurrence and combined endpoint (VTE recurrence and/or death from any causes).

Results: In all pts, median of follow-up was 2,77 years (min 2 weeks, max 11,61 years, IQR 1,44 to 10,31 years). Seventy seven (69%) pts had ended

the 10-year follow-up period completely or achieved the endpoint. In these pts, median of follow-up was 9,23 years (IQR 1,70 to 10,53 years). Thirty-five cases were censored. During 10 years, the VTE recurrences rate was 27,7%, 14 pts died, the combined endpoint rate was 36,6%. Kaplan-Meier analysis showed that pts with elevated D-D level after 1 month of the anticoagulant therapy had higher 10-year cumulative risk for adverse outcomes (chi-square=6,0, p=0,014 for VTE recurrence; chi-square=13,7, p<0,001 for combined endpoint). Cox regression confirmed that elevated D-D level after 1 month of the anticoagulant therapy was associated with a 2,5-fold increase in the 10-year VTE recurrences risk (HR 2,52; 95% CI 1,18–5,42; p=0,018) and a 3,2-fold increase in the 10-year combined endpoint risk (HR 3,21; 95% CI 1,68–6,15; p<0,001) compared pts with normal D-D level after 1 month of the anticoagulant therapy.

Conclusions: During 10 years, the VTE recurrences rate was 27,7%, combined endpoint rate (VTE recurrence and/or death from any causes) was 36,6%. Elevated (>0,5 ug/ml) D-D level after 1 month of the anticoagulant therapy had a prognostic value and was associated with the 2,5-fold increase in the 10-year VTE recurrences risk and the 3,2-fold increase in the 10-year adverse outcomes risk.