

Age Dependent Influence of External Temperature on the Pathogenesis of Idiopathic Lower Extremity Deep Vein Thrombosis

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Abstract

Aim: The aim of the present study was to investigate the relationship between the incidence of idiopathic lower extremity deep vein thrombosis (DVT), age, location of the thrombus, and changes of temperature.

Material and method: During the two-year period between May 2009 and April 2011, inclusive, 124 consecutive patients were diagnosed as having idiopathic lower extremity DVT at the Vascular Surgery Clinic "Clinical Center of Niš", Serbia.

Results: In patients younger than 45 years, the increase in average daily temperature with 1 degree C 7 days before the event took place was associated ($p < 0.05$) with a decrease of the risk of occurrence of idiopathic DVT of the lower limbs of 3.6% (0.4 – 6.7%) as well as DVT above the knees ($p < 0.01$) of 4.7 % (1.3 – 8.0%). In patients of the age of 45 years and over the age of 45 years the increase of average daily temperature with 1 degree C 7 days before the event took place was associated ($p < 0.01$) with the increase of the risk of occurrence of DVT below the knees of 9.4% (3.3 -15.9%).

Conclusion: According to the results of this study, one can conclude that the influence of external temperature change on DVT incidence and location is based on age.

Key words: idiopathic lower extremity deep vein thrombosis, location of the thrombus, temperature, age

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