

Relationship between the Incidence of Idiopathic Lower Extremity Deep Vein Thrombosis and the Location of the Thrombus depending on the Changes in Atmospheric Pressure

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Abstract

Aim: The study analysed the relationship between the incidence of idiopathic lower extremity deep vein thrombosis (DVT) and the location of the thrombus with changes in atmospheric pressure.

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

Results: The increased average daily values of atmospheric pressure for 1 millibar on the day when the event took place and 7 days before, were associated ($p < 0,05$) with the increase of the total risk of the occurrence of lower extremity idiopathic DVT for 5,1% (0,7 – 9,8%), as well as with the occurrence of idiopathic DVT above the knees ($p < 0,05$) for 5,9% (0,9 – 11,0%). The increase in the average atmospheric pressure by 1 millibar on the day when the event took place and 7 days before this in the subgroup of patients under the age of 45 years, and on the day when the event took place and 3 days before it in the subgroup of patients of the age of 45 and above, was related with the increased risk of the occurrence of lower extremity idiopathic DVT.

Conclusion: The increase of daily values of atmospheric pressure shows a significant relationship with the incidences of idiopathic lower extremity DVT and the location of the thrombus above the knee.

Key words: idiopathic lower extremity deep vein thrombosis, location of the thrombus, atmospheric pressure

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