

6. Importance of blood count parameters in the prognosis of acute ischemic vascular stroke

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Acute ischemic vascular stroke is the most common type of vascular strokes with worldwide incidence approximately 9,5 million cases. At the same time, it represents the most common cause for long term sickness absence and for inability to move in adult population. The guidelines for treating the ischemic vascular stroke that stem from the medicine based on evidence, recommend the systematic thrombolysis with the use of recombinant tissue activator – the plasminogen and the mechanical thrombectomy (in the case of proximal intracranial occlusion in the frontal circulation) (class 1, level of evidence A). However, in some cases the treatment of ischemic vascular stroke doesn't lead to the desired effect. Furthermore, in the presence of clinical risk factors, such as a higher level of neurological damage, often it can not be applied. The condition for solving this problem could be the identification of suitable laboratory markers which could be used for predicting the level of success of the applied treatment methods considering the functional independence of the patient. Modern studies focus mainly on available and low-cost laboratory methods, among which the blood count is the most dominant one. While many studies focus on the relation between the parameters of the blood count and the coronary diseases, those that analyse the relationship with the cerebrovascular strokes are still lacking. The aim of this project is to firstly contribute to the search of the laboratory marker that can be used in the decision making process of the clinic, and also to point out the crucial prognostic meaning of the laboratory diagnostics in the hyperacute stage of the ischemic vascular stroke.