

Inflammation and vascular disease**Pavel Poredoš**

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During the last decade, the role of inflammation in the etiopathogenesis of arterial thrombosis has been elucidated. Inflammation is basic pathogenetic mechanism of atherosclerosis thromboembolic complications. However, little is known about the relationship between inflammation and venous thrombosis. Recently, inflammation has been accepted as a possible mechanism through which different risk factors trigger thrombus formation in arteries as well as in veins. The data indicate that inflammation of the vessel wall initiates thrombus formation in an intact vein and that inflammation and coagulation systems are coupled by a common activation pathway. The first event in thrombus formation is most probably activation of endothelial cells, platelets and leucocytes, with initiation of inflammation and formation of micro particles that trigger the coagulation system through the induction of a tissue factor. Therefore, the key event in the initiation of venous thrombus formation is most probably vein wall inflammation. However, expected relationship between inflammatory markers as indicators of inflammatory process and clinical venous thromboembolism (VTE) has not yet been elucidated. C-reactive protein does not appear to be useful in predicting future venous thrombosis or to be useful in the diagnosis of VTE. Recently, it was demonstrated that probable association between VTE and several other markers of inflammation such as: interleukin (IL)-6, IL-8 and tumor necrosis factor- α exists. While these markers of inflammation were studied during or after acute venous thrombosis, further prospective studies are needed to determine the predictive value of inflammatory markers for VTE. The identification and elucidation of inflammatory markers relevant to venous thrombosis could provide targets for future therapy. That inflammation is the basic etiopathogenetic process of VTE is also supported by the relation of some risk factors to both arterial and venous thrombosis: age, increased body mass index, hypercholesterolemia, hypertension, lupus anticoagulant and hyperhomocysteinemia. A relation was also found between preclinical and clinical atherosclerotic disease and VTE. Also in line with these arguments are the preventive effects of aspirin and statins in both arterial and venous disease.

Biography

Dr. Poredos graduated in the year 1974 from Medical Faculty Ljubljana, Slovenia with the specialization in internal medicine. He did his master of science and PhD in the year 1989. He is now the head of clinical department for vascular disease Medical Center Ljubljana and also as full professor of internal medicine at Medical faculty in Ljubljana.

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