BioMed Research International

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Special Issue on

Clot Structure and Fibrinolysis in Thrombosis and Hemostasis

CALL FOR PAPERS

Studying the structural features of the blood clot and its consequences on medical disorders is an expanding area in coagulation research. The conversion of fibrinogen to fibrin and its cross-linking by activated factor XIII represent the final steps in blood coagulation required to form a stable clot. There is a fine balance between clot formation and fibrinolysis determining clot stability. Moreover, as clot formation in vivo occurs in a complex environment, whole blood clots contain cellular elements which greatly influence thrombus size, composition, and stability. One of the great advances in the last decade was the discovery of neutrophil extracellular traps (NETs), which are now known to influence clot formation and the lytic and mechanical stability of clots. The structural, biological, physical, and chemical properties of the blood clot may vary considerably depending on genetic and environmental factors. Altered fibrin structure and affected fibrinolysis have been linked to several diseases, including cardiovascular diseases, such as myocardial infarction, ischemic stroke, or venous thromboembolism. On the other hand, specific changes in the fibrin clot structure might lead to diseases associated with a bleeding phenotype. Altered levels of hemostatic and fibrinolytic proteins have been found in various chronic diseases associated with vascular complications, for example, chronic liver disease, diabetes mellitus, systemic autoimmune disorders, chronic kidney failure, atrial fibrillation, and Alzheimer disease. Recent research revealed important new genetic and acquired factors affecting thrombus formation, clot structure, and fibrinolysis.

The aim of this special issue is to present and discuss recent progress in the research of blood clot formation, structure, fibrinolysis, and possible clinical consequences. High-quality original research papers as well as review articles are solicited. Submitting basic scientific, translational, or clinical papers contributing to the advances in these fields all is encouraged.

Potential topics include but are not limited to the following:

- Basic studies on fibrin clot/whole blood clot properties
- Basic studies on fibrinolysis
- Neutrophil extracellular traps and clot structure/fibrinolysis
- Clot structure and fibrinolysis in thrombotic/bleeding disorders
- Clot structure and fibrinolysis in various diseases
- Animal models on clot formation, thrombosis, and fibrinolysis
- Clinical studies on genetic or environmental factors associated with clot formation/fibrinolysis
- New methods or models in the field of clot structure/fibrinolysis research

Authors can submit their manuscripts through the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/bmri/vascular.medicine/clft/.

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