

ABSTRACT

Charles University in Prague

Faculty of Pharmacy in Hradec Králové

Department of Pharmaceutical Chemistry and Drug Control

Student: Konstantinos Kolotsios

Consultant: Assoc. Prof. PharmDr. Miroslav Miletin, Ph.D.

Title of Thesis: Literature review in field of blood clotting influencing drugs

From 1919, when the heparin and 1920's, when hydroxycoumarin, were isolated, many important steps in agents affecting blood clotting have been done. All these years until now, several agents were tested and used for prevention and treatment of thromboembolism and other conditions like deep vein thrombosis, acute coronary syndrome and others.

This thesis is a review of agents that influence blood clotting. The first two chapters, are to understand the pathways that are activated after an injured blood vessel wall and all these enzymes, factors and receptors that play a crucial role in formation of clots.

On third chapter, all agents, old, current, discontinued, or under development are analyzed according to their mechanism of action.

Many agents are used in our days with great efficacy and safety, but also with important side effects. A lot of agents are under investigation for better safety, quality and efficacy. It is important to develop the ideal agent and many scientists try to overcome this challenge nowadays.