

SYNTHESIS OF 3-(2-METHYL-4-OXO-1,4-DIHYDROQUINOLINE-3-YL) PROPANOIC ACIDS AND THEIR EFFECT ON THE BLOOD COAGULATION SYSTEM

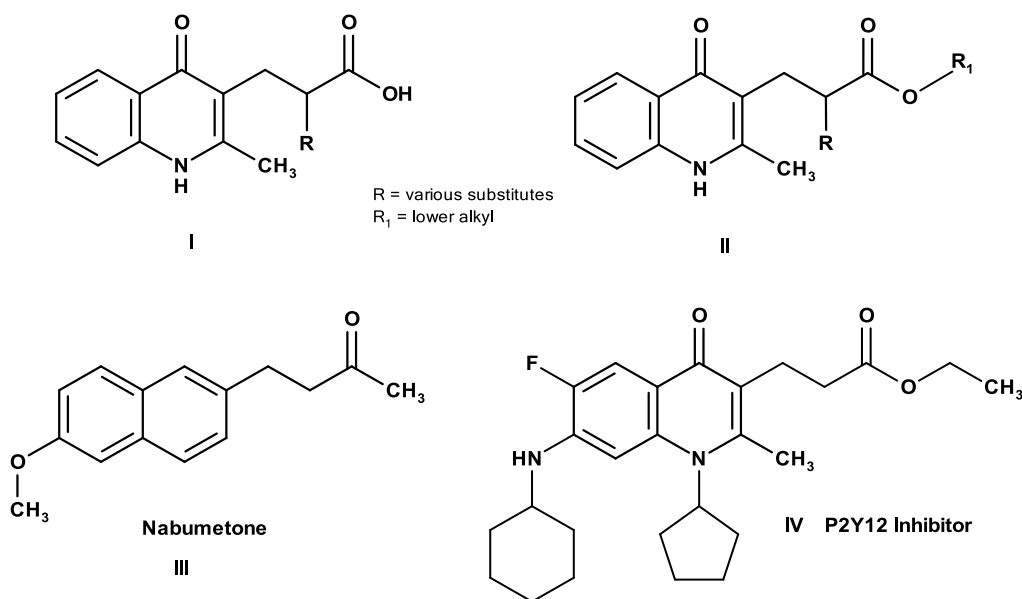
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The study of the effect of new biologically active substances on the blood coagulation system is one of the important pharmacological investigation in modern medical chemistry. The use of such studies makes it possible to foresee the emergence of possible side effects of new medicines already at the early stages of drug discovery. Without any doubt, the effect on the blood coagulation system is desirable carried out in those cases when the receptor target with which the studied ligands are interacted is known and, accordingly, the spectrum of the revealed side effects is known. Special attention given to the search for new anti-inflammatory agents, in particular selective and non-selective COX-1 and COX-2 inhibitors, which can cause both thrombotic complications and an increase in the effect of anticoagulants, which can lead to internal bleeding.



At the department of medical chemistry of the NUPh, carried out research of derivatives of 3-(2-methyl-4-oxo-1,4-dihydroquinolin-3-yl) propanoic acids (**I**, **II**) which can be effective NSAIDs and at the same time have a structural similarity to well-known platelet aggregation inhibitors **IV**. Performed *in silico* and *in vitro* studies allowed us to make some structure-activity relationships. In particular, the dependence of pharmacological activity such parameters as the molecular volume of substituents and logP was established.