

ESTIMATION OF EFFICIENCY OF TWO-COMPONENT ANTI-AGGREGANT THERAPY BY CLOPIDOGREL AND ASPIRIN

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The present study is a clinical case of a patient with established unstable angina, who underwent standard two-component antithrombotic therapy with clopidogrel in a daily dose of 75 mg and acetylsalicylic acid (ASA) in a daily dose of 50 mg with oral administration. Selective irreversible inhibition by the active metabolite of clopidogrel P2Y₁₂ receptors prevents ADP-mediated activation of integrin IIb/IIIa receptors, which leads to suppression of platelet aggregation. Platelet aggregation caused by other agonists whose action is mediated

through ADP is also inhibited. The severity of the action of clopidogrel depends on the state of the enzyme system of cytochrome P450. ASA reduces aggregation, platelet adhesion and thrombosis by inhibiting the synthesis of thromboxane A₂ in platelets. This type of therapy significantly reduces the risk of vascular complications. To assess the effectiveness of the prescribed two-component therapy in this patient, we conducted a comparative analysis of platelet aggregation sensitivity to the action of the ADP aggregation stimulator before treatment and 1 month after it was prescribed. Platelets were studied by small angle light scattering (LaSca-metod – Low angle Scattering method) using a LASKA-TM laser analyzer (BioMedSystem LLC, Saint Petersburg). A quantitative assessment of the effect of an agonist on platelet aggregation was established on the basis of a change in the dose-response relationship, and the kinetic parameters of aggregation were calculated and evaluated: the maximum initial *V*_{ia} aggregation rate and sensitivity to the EC₅₀ADP agonist. Comparison of aggregation indices before and after 4 weeks of taking clopidogrel and ASA revealed a decrease in aggregation rate by 11%, a decrease in sensitivity to an agonist (ADP) by more than one and a half times.

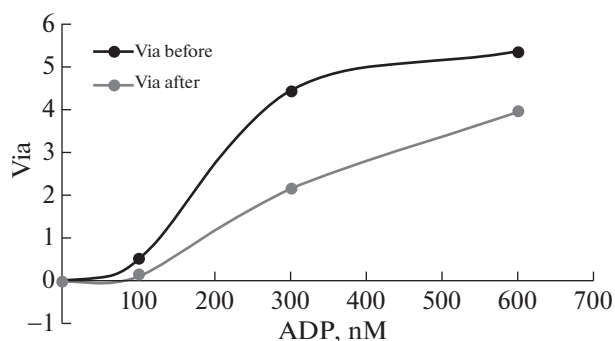


Fig. 1. Change in platelet aggregation rate before and after clopidogrel and aspirin therapy.

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