

ACTIVATED PARTIAL THROMBOPLASTIN TIME AS INDICATOR OF DABIGATRAN EFFICIENCY IN PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION

Ana Antić¹, Zoran Stanojković^{1,2}, Marija Jelić³, Miodrag Vučić^{2,4}

¹Blood Transfusion Institute Niš, Serbia

²University of Niš, Faculty of Medicine, Serbia

³Clinical Biochemical Laboratory, Military Hospital Niš, Serbia

⁴Clinic of Haematology, Clinical Center Niš, Serbia

Contact: Ana Antić

Blood Transfusion Institute Niš

Blvd. dr Z. Djindjića 48, 18000 Niš, Serbia

E-mail: anaantic@sbb.rs

Dabigatran, a new generation anticoagulant, is a direct thrombin inhibitor, which has a rapid onset of action and relatively wide therapeutic scope, with no need for monitoring of efficacy, as is the case with vitamin K antagonists. However, there are certain emergency situations that require immediate assessment of the effectiveness of dabigatran. The aim of this study was to determine whether the aPTT as a screening coagulation test, can be reliably used to assess the anticoagulant effect of dabigatran.

The study included 32 patients with non-valvular atrial fibrillation who received dabigatran (Pradaxa, Boehringer Ingelheim) in a single dose of 110 mg or 150 mg twice a day. In all patients screening coagulation (PT, aPTT, INR) was done before the treatment. aPTT was performed 4 hours, 8 hours and 12 hours after taking the drug.

There was a statistically significant prolongation of aPTT after 4 hours and 8 hours of taking the drug in patients who were treated with 150 mg of dabigatran compared to 110 mg, while after 12 hours there was no statistically significant difference in aPTT between these two groups. There was a strong correlation between the control values of aPTT and the total increase in aPTT after dabigatran administration ($r = 0.96$ for a dose of 150 mg IR = 0.83 for a dose of 110 mg).

aPTT is a useful test for assessing the effect of dabigatran and can be used as a screening test in patients who urgently need to determine the efficacy of the drug.

Acta Medica Medianae 2018;57(1):135-140.

Key words: dabigatran, aPTT, anticoagulant, bleeding