

First experiences in the implementation of rivaroxaban in patients with pulmonary thromboembolism who received thrombolytic therapy

Slobodan Obradović, Boris Džudović, Snježana Vukotić, Danijela Vraneš, Miodrag Šipčić, Lidija Torbica, Nenad Ratković, Veljko Milić, Bojana Subotić, Anđelka Ristić

Clinic of Emergency medicine, Military Medical Academy, School of Medicine, University of Defense, Belgrade

Background. New direct anticoagulant drugs have entered the most recent guidelines for the management of pulmonary thromboembolism (PTE). However, it is still unknown whether and how these drugs could be used in treatment of patients with PTE after they received thrombolytic therapy, because these patients have been excluded from all randomized trials.

Patients. We analyzed an outcome of the treatment of 101 patients diagnosed with PTE who were treated in Clinic for emergency end internal medicine in Military Medical Academy in a period 2010–2014. After initial therapy with heparins, 53 patients received vitamin K antagonists, 9 patients remained only on heparins, 37 received rivaroxaban and 3 patients received dabigatran.

Results. In-hospital mortality was present in 11.1 % (1/8) of patients on rivaroxaban without thrombolysis, in 0 % (0/28) of patients who were treated with rivaroxaban and thrombolysis, in 4.8 % (1/20) of patients who received vitamin K antagonists without thrombolysis, in 75 % (6/9) of patients treated only with heparins and in 0 % (0/3) of patients treated with dabigatran. Six-month mortality rate was 22.2 % (2/7) of patients treated only with rivaroxaban, 3.6 % (1/26) of patients treated with thrombolysis and rivaroxaban, 19 % (4/17) of patients who received vitamin K antagonists without thrombolysis, 3.1 % (1/31) of patients who received vitamin K antagonists after receiving thrombolysis, 87.5 % (7/9) of patients only on heparins and in none of patients (0/3) treated only with dabigatran. Significant bleeding was noticed only during in-hospital stay and in particular in 25 % of patients treated with rivaroxaban after thrombolysis and in 18 % of patients treated with vitamin K antagonists after thrombolysis ($p=ns$). There were no fatal bleedings.

Conclusion. Rivaroxaban is probably equally safe and effective compared with conventional treatment (heparin and continuation of the vitamin K antagonists) in patients with PTE after administration of thrombolytic therapy.

Keywords: pulmonary embolism, rovoroxaban, thrombolytic therapy