

## NEW APPROACHES OF TREATMENT IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION IN BELARUS

**Purpose:** To analyze the results of new approaches of treatment in patients with acute myocardial infarction (AMI) in Vitebsk Region of the Republic of Belarus according to ESC Guidelines (2007 and 2008).

**Methods:** From 2009 in Vitebsk Region the application of new approaches for the management of patients with AMI was started. All cases of AMI in the period 2009-2013 years were analyzed. AMI were identified in case of anginal episodes lasting 20 minutes of more with or without the Q wave formation, and increased levels of markers of myocardial necrosis (CK, CK-MB, troponin I), and any combination of clinical symptoms, allowing to suspect developing AMI. Reperfusion therapy was administered within the first 12 hours after symptom appeared, or even after 12 hours (according to the anamnesis) in case of clinical and/or electrocardiographic evidence of continuing myocardial ischaemia. Reperfusion therapy included primary percutaneous catheter intervention (PCI) and fibrinolytic treatment. Streptokinase was a fibrinolytic agent used. Antithrombin therapy consisted of Xa factor inhibitor Fondaparinux and antiplatelet agents were Clopidogrel in addition to Aspirin.

**Results:** Using blood sampling for troponin increased the number of AMI from 1747 in 2009 to 1877 in 2013. The number of ST-segment elevation myocardial infarction (STEMI) didn't change (1335 and 1376). Primary PCI increased from 4 cases in 2008 to 222 cases in 2013. Fibrinolysis increased from 443 cases to 783 cases. In patients with STEMI hospitalized before first 12 hours reperfusion therapy was used in 58,9% in 2009 and in 82,1% in 2013. In-hospital mortality from AMI decreased to 5,95% in 2013, as compared with 2009, where it was 6,5% ( $p < 0,05$ ). In age group 18-60 years old in-hospital mortality decreased from 3,9% in 2009 to 1,96% in 2013 ( $p < 0,05$ ).

**Conclusions:** The result of the application of new approaches on management and treatment of patients with AMI was reduction of the in-hospital mortality from AMI, especially in age group 18-60 years old.