



FEATURES OF THE COURSE OF ACUTE CORONARY SYNDROME IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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To study the features of the clinical course of acute coronary syndrome (ACS) in patients with type 2 diabetes mellitus (DM).

ABSTRACT

The study included 55 patients with ACS who were hospitalized at the Kashkadarya branch of the Republican Scientific Center for Emergency Medical Care in 2021–2022. Depending on the presence or absence of concomitant type 2 DM, the patients were divided into two groups. The main group consisted of 30 (54.5%) patients with type 2 DM, while the control group included 25 (45.5%) patients without DM..

Objective. To study the features of the clinical course of acute coronary syndrome (ACS) in patients with type 2 diabetes mellitus (DM).

Materials and Methods. The study included 55 patients with ACS who were hospitalized at the Kashkadarya branch of the Republican Scientific Center for Emergency Medical Care in 2021–2022. Depending on the presence or absence of concomitant type 2 DM, the patients were divided into two groups. The main group consisted of 30 (54.5%) patients with type 2 DM, while the control group included 25 (45.5%) patients without DM. The mean age of patients in the groups was comparable and amounted to 62.8 ± 6.85 and 66.7 ± 7.25 years, respectively ($p < 0.05$). However, the groups differed somewhat in gender distribution: women predominated in the main group (63.3%; 19/30), whereas in the control group women accounted for 44.0% (11/25) ($p = 0.152$).

Results. In the main group, compared with the control group, arterial hypertension (80.0% vs. 52.0%, $p = 0.028$) and obesity (63.3% vs. 28.0%, $p = 0.021$) were observed significantly more frequently. It was also noted that, in the presence of DM, the initial period of ACS was significantly more often accompanied by atypical localization or markedly lower intensity of the pain syndrome (36.7% vs. 12.0%, $p = 0.037$). Patients with carbohydrate metabolism disorders were approximately twice as likely to be admitted with a recurrent episode of ACS (16.7% vs. 8.0%, $p = 0.337$).

Moreover, in 4 (13.3%) patients with DM, the diagnosis of ACS with transformation into acute myocardial infarction (AMI) was established only after the appearance of a pathological Q wave and ST-segment elevation on ECG, or based on the detection of zones of left ventricular dyskinesia on echocardiography. In patients with type 2 DM, the development of large-focal AMI was observed somewhat more frequently ($p = 0.163$) compared with patients without DM (66.7% vs. 48.0%). At the same time, this indicator significantly depended on the

duration of DM. Among patients with a duration of carbohydrate metabolism disorder of less than 5 years ($n = 13$), large-focal AMI was diagnosed in 6 (46.2%) patients, whereas among patients with DM lasting more than 5 years ($n = 17$), this form of the disease was observed in 15 (88.2%) cases ($p = 0.013$). The presence of type 2 DM was also associated with a somewhat higher incidence of acute cardiovascular failure of Killip classes II–IV (26.7% vs. 12.0%, $p = 0.176$).

The course of the post-infarction period also differed between the compared groups. In the presence of type 2 DM, the clinical manifestations of early post-infarction angina were observed significantly less frequently compared with patients without diabetes (50.0% vs. 92.0%, $p < 0.001$), which is likely associated with diabetic neuropathy and the development of cardiac autonomic neuropathy in patients of the main group.

The presence of type 2 DM in patients with ACS was also significantly more often associated with the development of cardiac rhythm disturbances such as supraventricular or ventricular extrasystoles, atrial fibrillation, and sinus tachycardia (43.3% vs. 16.0%, $p = 0.029$). In addition, patients in the main group significantly more frequently developed heart failure stages IIA–IIB (66.7% vs. 40.0%, $p = 0.048$).

A similar tendency was observed for other common complications of ACS: patients with type 2 DM more often developed cardiac asthma and pulmonary edema (16.7% vs. 8.0%, $p = 0.337$).

Conclusion. Patients with ACS and concomitant type 2 DM are characterized by a predominance of women and individuals with arterial hypertension, as well as by a more frequent atypical localization or significantly lower intensity of the pain syndrome. In the presence of DM, large-focal AMI, acute cardiovascular failure, cardiac rhythm disturbances, cardiac asthma, and pulmonary edema are observed more frequently.

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