Epidemiology, Prognosis, Outcome

## The main etiological reasons of fatal type 2 myocardial infarction

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Purpose: the assessment of the proportion of myocardial infarction (MI) type 2 in the structure of mortality in a multidisciplinary hospital

Material and methods. A retrospective study was made of 1,574 autopsy protocols carried out in a multidisciplinary hospital in the period from 01.01.10 to 31.12.16, of which a group with postmortem type II MI was identified. The control group was composed of persons who died from proven atherothrombotic type 1 MI

**Results.** In 360 cases (22.87%), the cause of death was MI. Of these, 137 cases were due to type 2 MI. The ratio of men and women was the same. Type 2 MI more often developed in elderly (48.2%) and senile (34.3%) ages; the average age of patients with type 2 MI was 71.7  $\pm$  years (68.2  $\pm$  3 years among men and 75.3  $\pm$  4 years among women p <0.05), which did not differ from the group with fatal type 1 MI. The main causes of death in type 2 MI were tachysystolic arrhythmias - 59.12% of cases, severe hypoxia of any etiology - 35.04%. The absence of significant stenoses of coronary artery (CA) is significantly more common in type 2 MI, and multivessel disease - in type 1 MI. In the group of patients with type 1 MI, 67.29% had multivessel lesions (Table 1).

When comparing mortality in different departments of a multidisciplinary hospital, it turned out that only 29.2% of patients with type 2 MI were initially hospitalized in the cardiology department; 45.3% of patients - therapeutic, 25.5% of patients – surgical.

**Conclusion.** Nearly one in four patients die as a result of MI, with more than 1/3 of fatal MIs occurring in type 2 MI. The main reasons for the development of type 2 MI: tachysystolic arrhythmias - 59.12%, hypoxia of various origins - 35.04%, sepsis - 2.2%. 25% of fatal type 2 MIs occurred in surgical patients.

Table 1. CA in type 1 and 2 MI

Sign	Type 1 MY n = 223	Type 2 MY n = 137	p
No significant stenosis	2,24%	32,85%	0,001
Single CA significant stenosis	8,07%	12,41%	0,193
2-CA significant stenosis	23,3%	23,36%	0,272
Multivessel stenosis	66,4%	31,38%	0,005
Occlusion of at least one CA	48,9%	4,38%	0,001