18.6.2 - Non-ST-Elevation Myocardial Infarction (NSTEMI)

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Relationship between quality of life indicators and clinical and instrumental indicators in NSTEMI patients

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Purpose: To determine the quality of life indicators and relationship with different clinical and instrumental parameters in NSTEMI patients.

Methods: We studied 200 patients with NSTEMI aged from 35 to 79 years (mean 60.7 ± 0.8 , median - 61, interquartile range 54 and 69). Quality of life indicators were assessed by MIDAS-35. All of the research corresponds to the principles of the Declaration of Helsinki of the World Medical Association.

Results: In order to select the most informative model variables (independent predictors), a preliminary Spearman correlation analysis of the initial parameter (summary score for MIDAS-35) was performed with all clinical, instrumental and laboratory parameters that represented the statistical matrix of the study. There was a direct moderate correlation with the degree of stenosis of the LCx in % according to coronary angiography (R = 0.31, p < 0.0001) and the size of the LA in mm (R = 0.32, p < 0.0001) and weak - with the presence of frequent VE (R = 0.25, p = 0.001), the presence of paroxysms of the VT (R = 0.24, p = 0.002), smoking (R = 0.29, p = 0.0002), the level of total cholesterol > 6 mmol / I (R = 0.17, p = 0.02) and ST2 in plasma (R = 0.18, p = 0.02). In addition, a negative weak correlation between the total score and the nature of LV diastolic dysfunction (R = -0.22, p = 0.001) and the presence of the biochemical association ST2 < 36 ng / ml + Tp I > 6 ng / ml in plasma (R = -0.23, p = 0.003) (Tab. 1).

Conclusion: Our correlation analysis allowed us to identify the factors that have the greatest impact on the quality of life in patients with NSTEMI. It was found that the increase in the total score for MIDAS and the deterioration of quality of life depends on the type of coronary artery disease, ST2 level, total cholesterol and myocardial remodeling.

Overall score by the MIDAS-35	Spearman R	P-value
The presence of frequent VE on the 1st day of MI (yes -1, no - 0)	0,25	0,001
The presence of paroxysms of the VT on the 1st day of MI (yes -1, no - 0)	0,24	0,002
History of smoking (yes -1, no - 0)	0,29	0,0002
The degree of stenosis of the LCx,%	0,31	<0,0001
LA, mm	0,32	<0,0001
Diastolic LV dysfunction (1 - relaxation disorders, 2 - pseudonormal type)	-0,22	0,001
Total cholesterol $> 6 \text{ mmol/L}$ (yes -1, no - 0)	0,17	0,02
ST2 level, ng/ml	0,18	0.02
Association ST2 < 36 ng / ml + Tp I > 6 ng / ml (yes - 1, no - 0)	-0,23	0,003

Spearman's rank correlation between the value of the total score on MIDAS-35 and various clinical, instrumental and biochemical parameters in patients with NSTEMI

Note. VE - ventricular extrasystoles, VT - ventricular tachycardia, LCx - left circumflex artery, LA - left atrium, LV - left ventricle, ST2 - gene 2 growth stimulating factor, Tp I - Troponin I.