

# Prognostic value of the asymptomatic ECG – changes at Holter monitoring in patients with unstable coronary artery disease

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*The aim of the study* was  
the assessment of a prognostic  
value of the asymptomatic  
myocardial ischemia at Holter  
ECG monitoring in patients with  
unstable coronary artery disease

# Material:

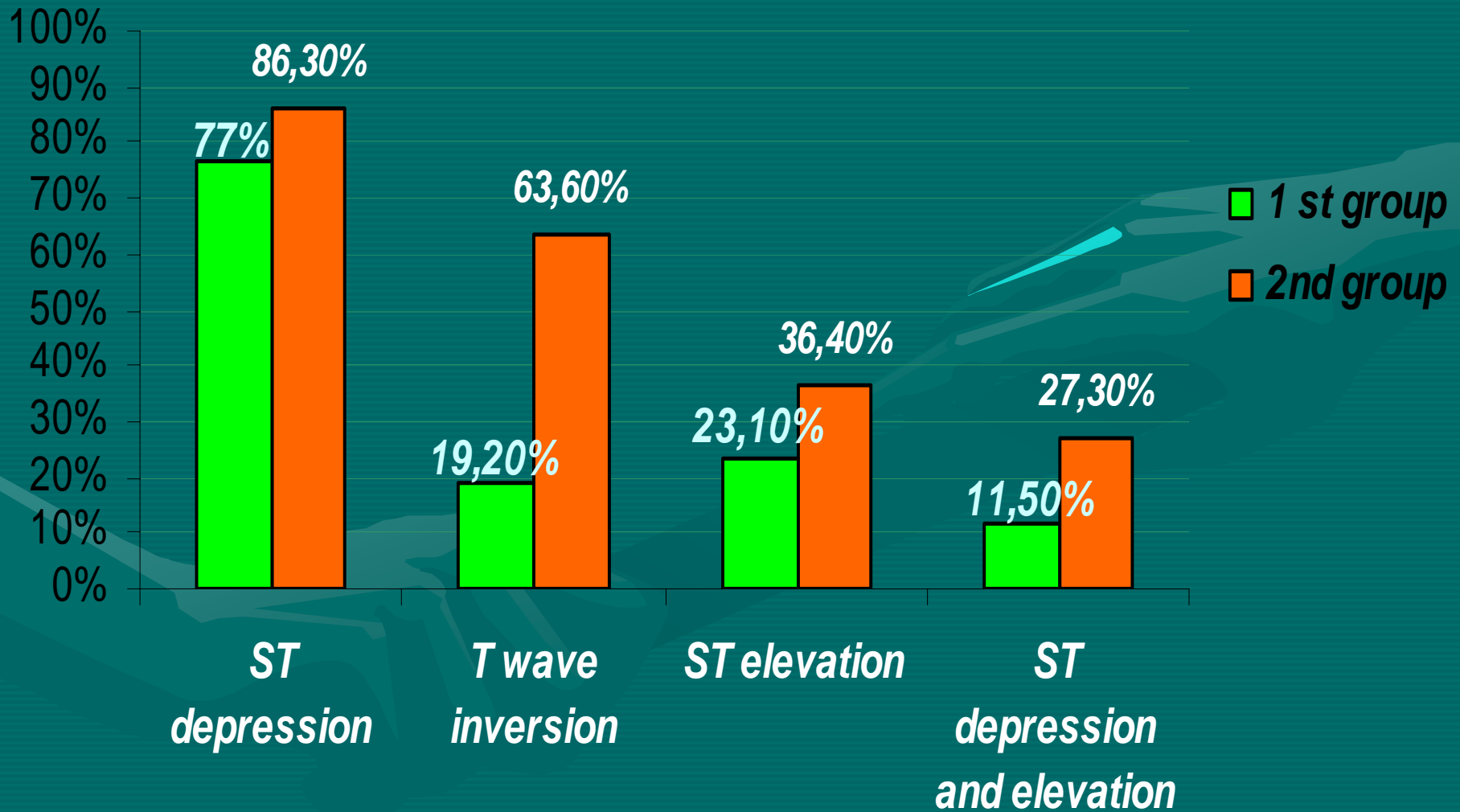
| <i>1<sup>st</sup> group</i>   | <i>2<sup>nd</sup> group</i>                                  |
|---|--|
| <i>with the stabilization of the ACS to the chronic stenocardia (I-II functional class)</i>                             | <i>with an acute myocardial infarction or fatal outcomes</i> |
| <i>26 pts</i>   | <i>22 pts</i>  |
| <i>F/M 12/14</i>  | <i>F/M 8/14</i>  |
| <i>age 50,8±2,6 y.o.</i>  | <i>age 54,6±1,8 y.o.</i>                                     |
| <i>Standard therapy of an ACS: enoxaparine, nitrates, <math>\beta</math>-blockers, ACE inhibitors, aspirin, statins</i> |  |

- **Patients of both groups had the comparable heart failure 1-2-3 functional class by NYHA, with the average age of 53.**

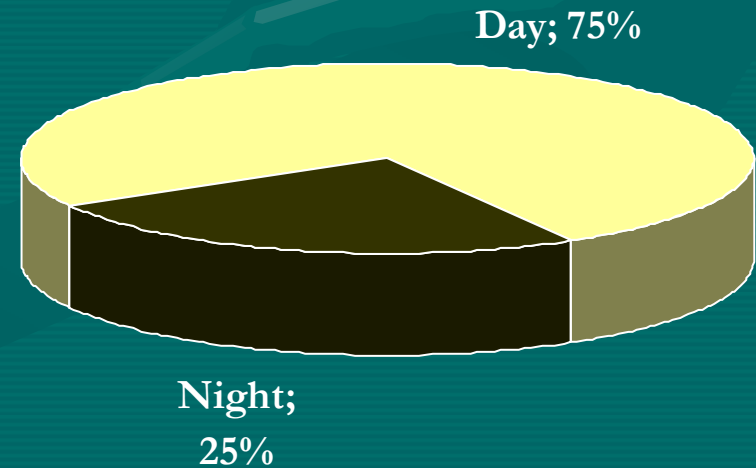
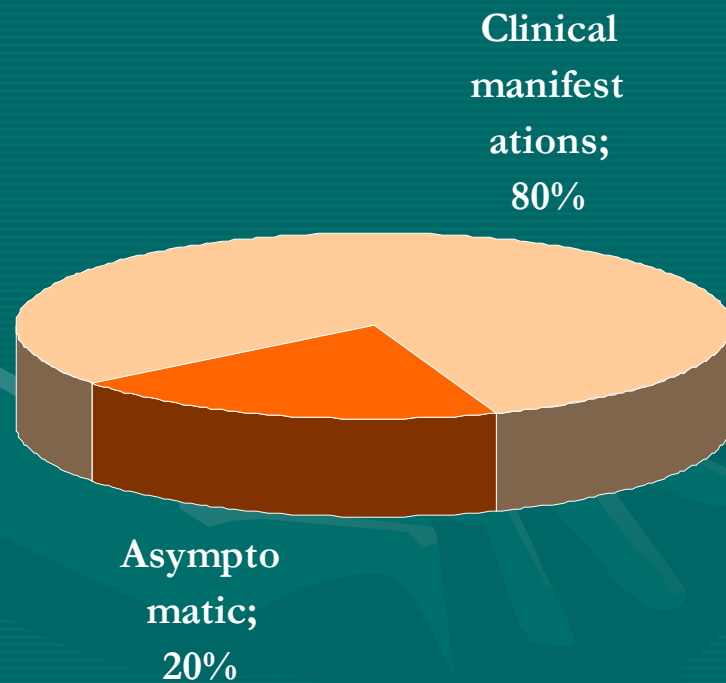
# Methods:

- The Holter ECG monitoring was performed using the complex “Cardiotechnology 4000”, “INCART”, Russia.

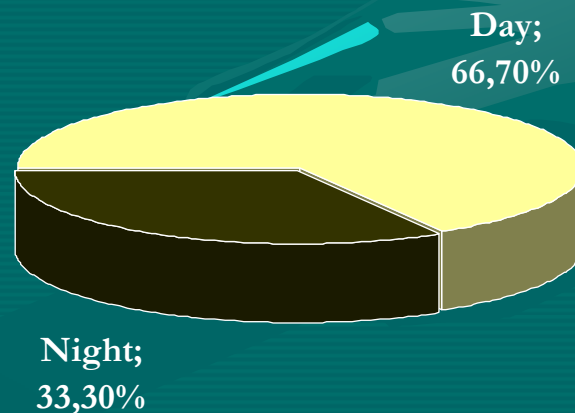
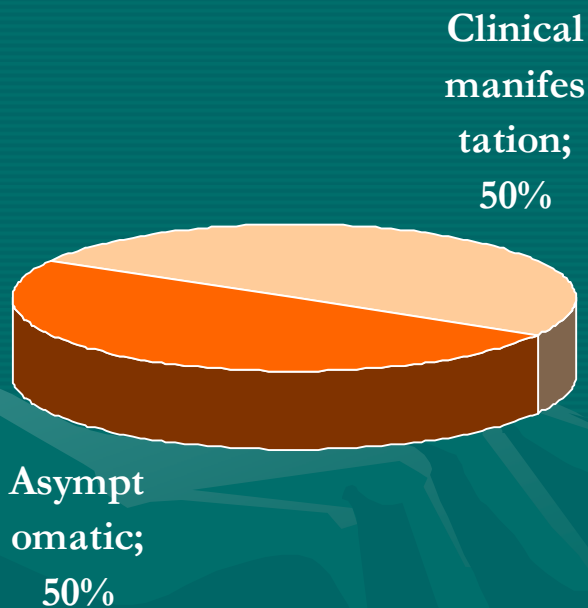
# ST changes



Among the pts of the 1st group-20% of ST depression episodes were asymptomatic, including  $\frac{3}{4}$  episodes during the daytime (mainly at the loads), and  $\frac{1}{4}$  - at night.

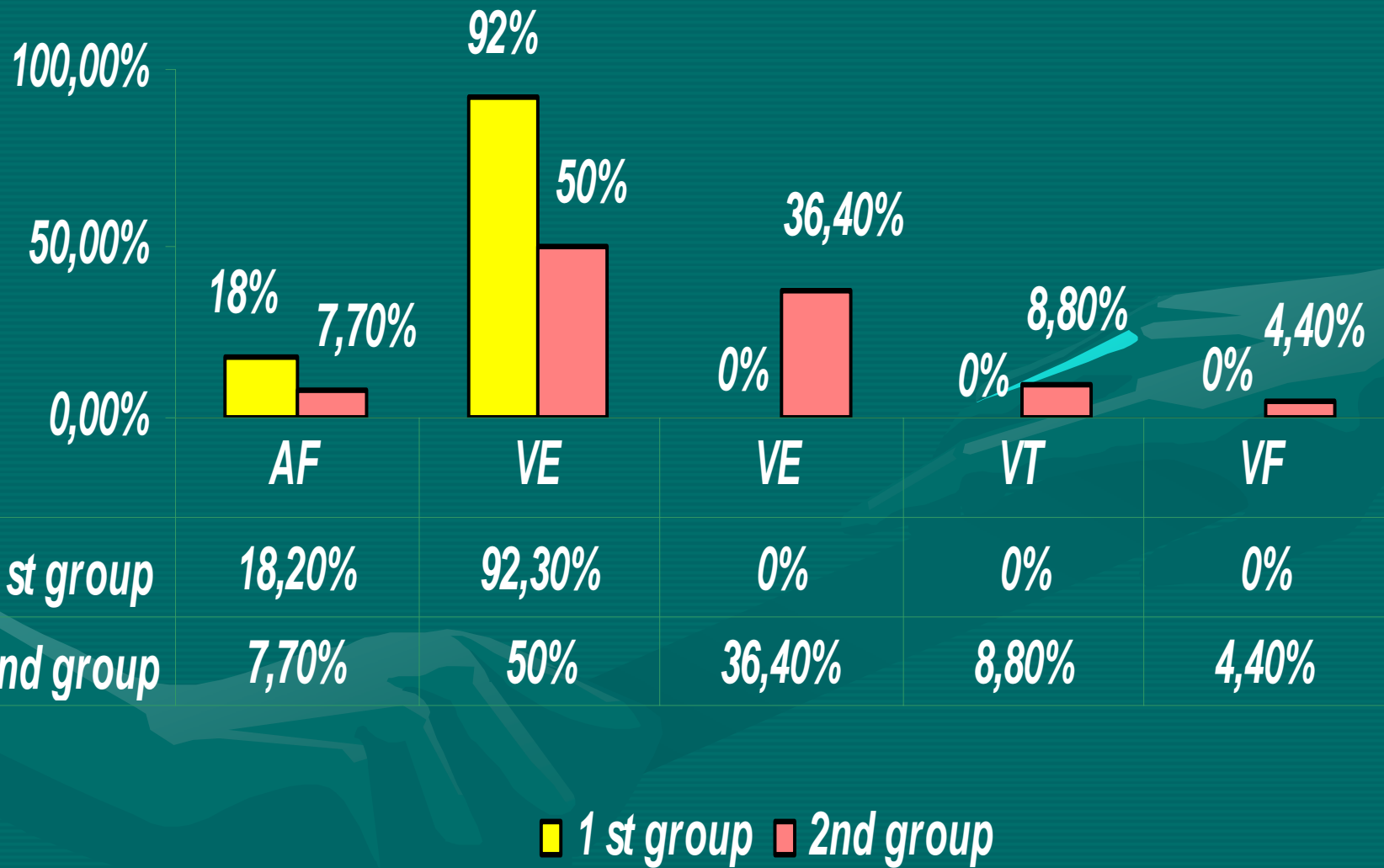


In the 2nd group 50% of all ST changes (66% during the daytime, 33% at night) were asymptomatic

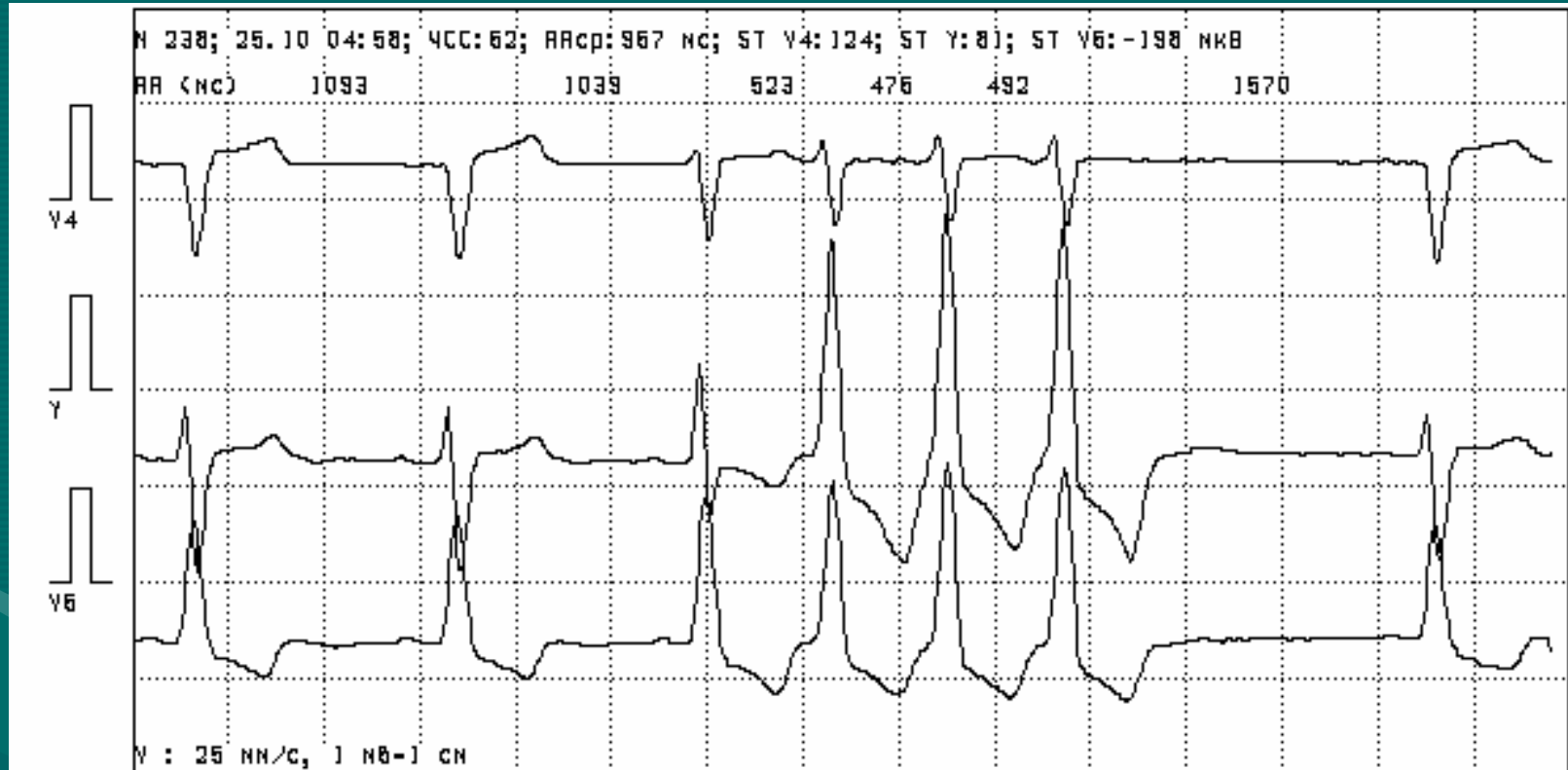


- Clinical manifestations were observed neither at ST elevation episodes (80% at night), nor at the transient T wave inversion in both groups (73, 9% during the daytime, 26,1% at night).

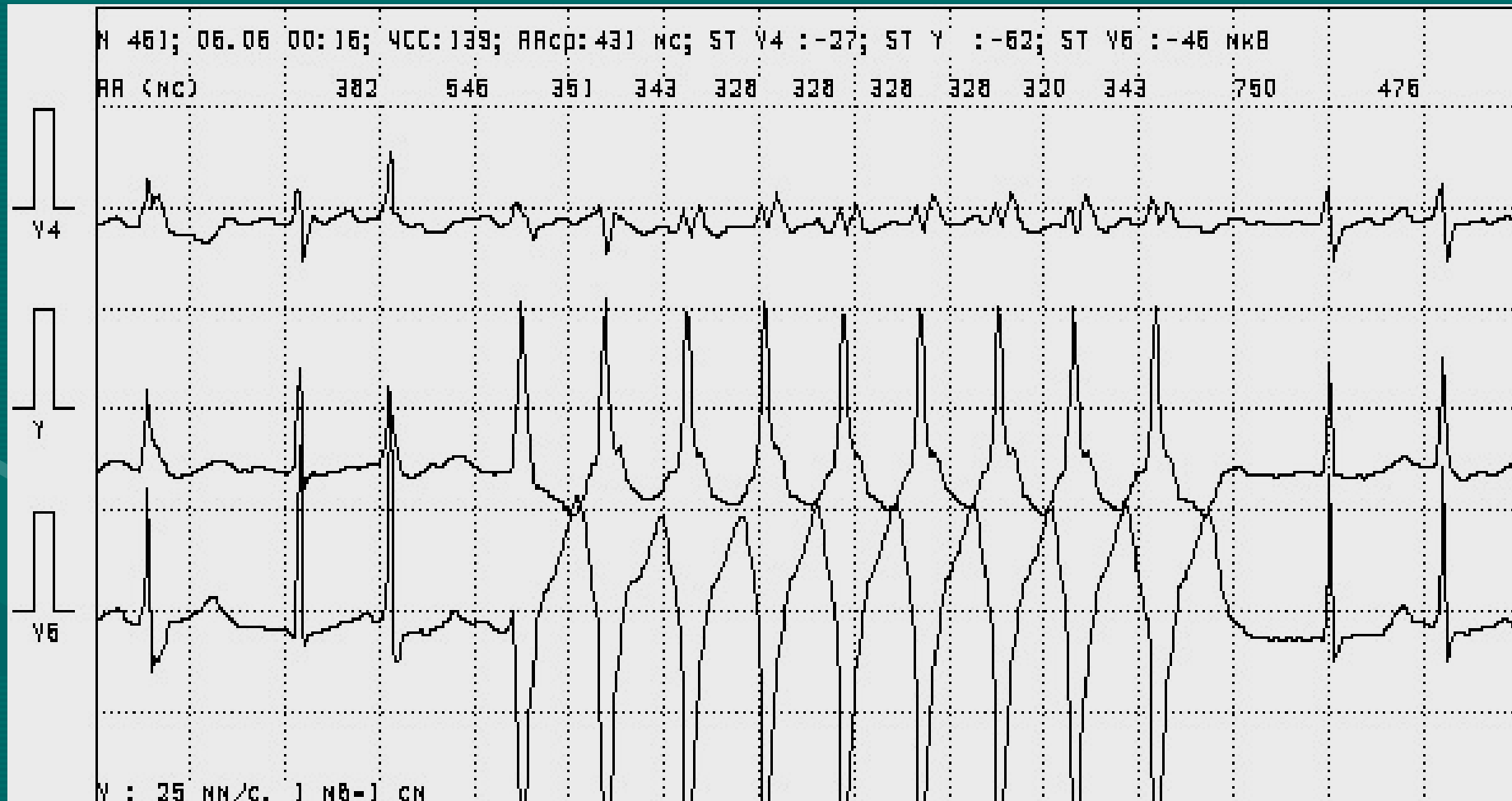
# Asymptomatic arrhythmias



# Patient A., 67 y.o., ACS, unstable ventricular tachycardia episodes



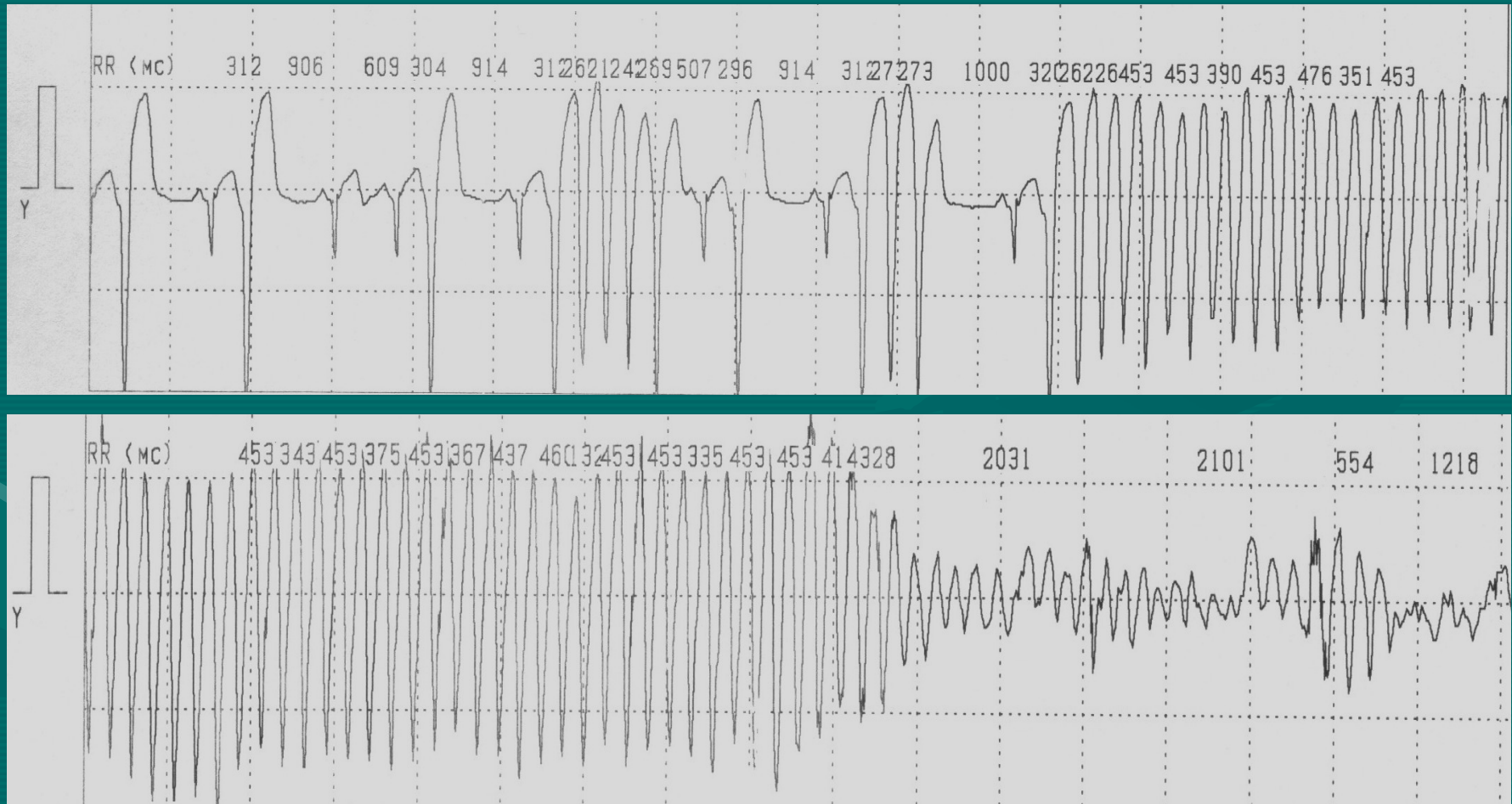
# Patient I., 46 y.o. with myocardial infarction ACS outcome. Atrial fibrillation with ventricular tachycardia episode



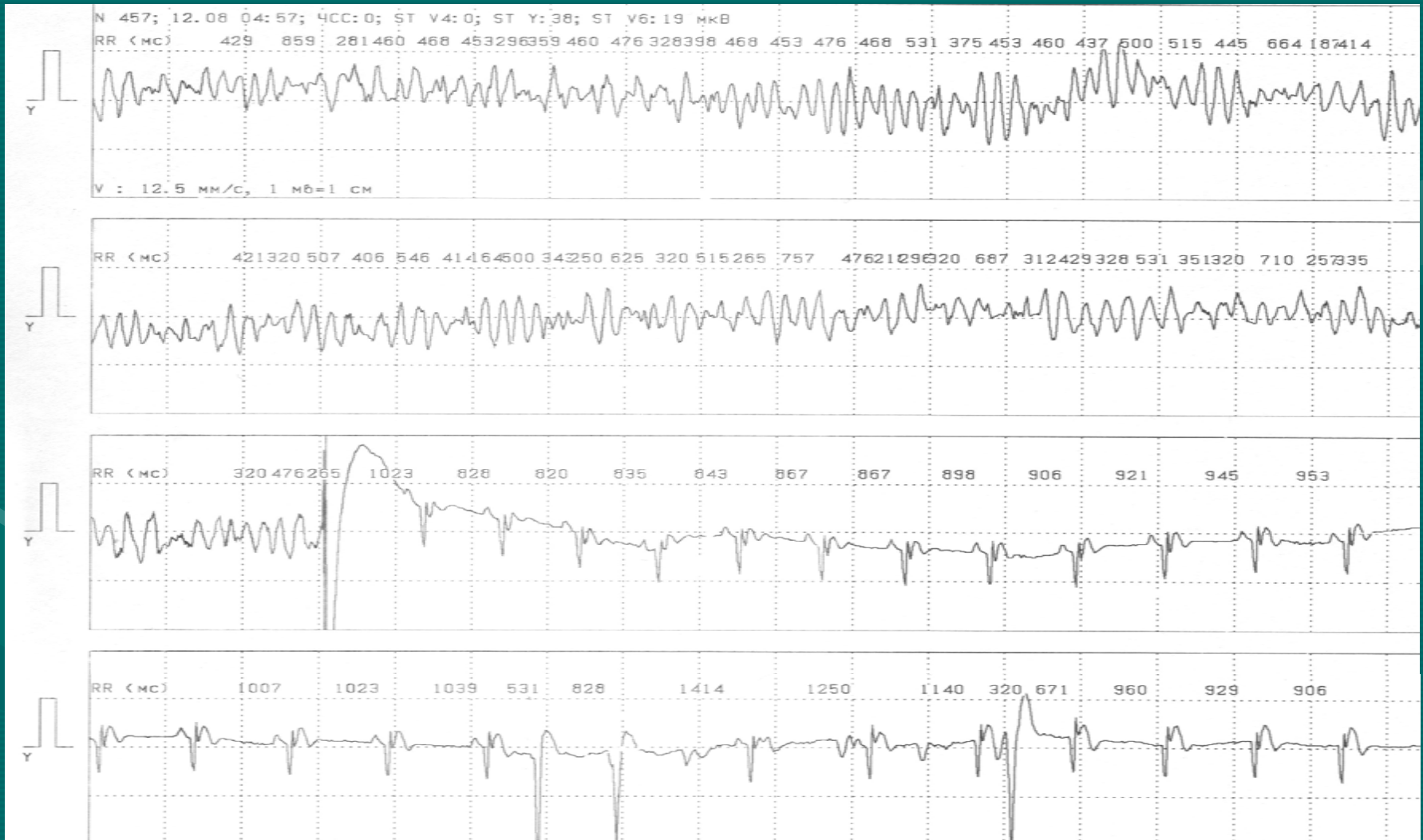
Patient C., 56 y.o.

Acute coronary syndrome with myocardial infarction outcome, 7-th day.

Ventricular extrasystoles, ventricular tachycardia resulting in ventricular fibrillation



# The some patient with following successful defibrillation



# Conclusions:

- *In patients with unstable coronary artery disease the asymptomatic segment ST changes, as well as T wave inversions were observed at Holter ECG monitoring, that had a significantly unfavorable prognostic value for the patients clinical outcomes (myocardial infarction, electrical myocardial instability following by the fatal arrhythmia, death).*

# Conclusions:

- *Therefore asymptomatic ECG changes and arrhythmias in patients with unstable coronary artery disease could be considered not only as a sign of myocardial circulation insufficiency, but also as a marker of an unfavorable prognosis, and the sudden death.*

