

**DYNAMICS OF PSYCHOLOGICAL STATE OF PATIENTS
WITH MYOCARDIAL INFARCTION DURING POSTCLINICAL
REHABILITATION**

Zh. Zheleva, I. Boncheva, T. Todorov, V. Projkova

*Clinic of Thalassotherapy, Physiotherapy and Rehabilitation,
Department of Internal Medicine, Varna*

There is no doubt about the role of the psychological factors in the etiology and pathogenesis of the coronary artery disease (CAD). The aim of our study was to survey the changes in the psychological state in relation to the postclinical physical rehabilitation in myocardial infarction (MI). A prospective study of psychological state of 40 patients with MI was done. The group of patients includes males whose mean age is $49 \pm 8,03$ years. They were rehabilitated during the subacute phase of the disease. Functional capacity and psychological state were tested at the beginning and at the end of the rehabilitation by an exercise stress test-veloergometry (VET) according to the recommendations of WHO, Kokoshkarova's questionnaire and Shipper's test. The results obtained by VET are listed on table 1.

Table 1. Physical capacity

Parameter	At the beginning of rehabilitation	At the end of rehabilitation	p
Test duration (min)	12,7 ± 2,62	14,48 ± 2,5	< 0,025
Threshold capacity (W)	112,03 ± 22,9	125,93 ± 20,9	< 0,025
Max. heart rate (min)	131 ± 15,84	123,25 ± 12,25	< 0,05
Max. syst. blood pressure	176 ± 18,50	168,01 ± 19,08	< 0,025
Double product	230,88 ± 39,5	208,66 ± 34,17	< 0,025

The reduced double product and the corresponding lower MVO_2 achieved at the end of the physical rehabilitation shows that patients are able to do more physical work for a certain double product or MVO_2 than at the beginning. The results of the parallel psychological study show the development of a neurotic state with leading neuros-theno-vegetative symptoms at the beginning of observation (table 2).

Table 2. Kokoshkarova's questionnaire

Symptoms	At the beginning (pts)	At the end (pts)	p
Neurasthenia	3,67 ± 1,63	2,20 ± 1,38	< 0,00006
Depression	1,85 ± 1,30	1,05 ± 1,20	< 0,01
Psychasthenia	2,10 ± 2,04	1,17 ± 1,53	< 0,02
Veget. disorders	3,35 ± 1,40	2,23 ± 1,40	< 0,001

When the programme of physical rehabilitation began psychological state changed significantly (table 3).

Table 3. Shipper's test

Parameter	At the beginning (pts)	At the end (pts)	p
Emotional state	3,78 ± 0,90	4,70 ± 1,10	< 0,001
Level of psych. a. psychomot. activ.	3,07 ± 0,96	4,26 ± 1,04	< 0,001
Hypochondria	4,67 ± 0,95	3,70 ± 1,08	< 0,00006
Relatives' attitude to the patient	3,18 ± 1,40	4,08 ± 1,33	< 0,01

As far as these patients are hyperactive and hypersensitive personalities the individualized physical activity is of great importance for them.

In about 30 days the patients are able to adapt themselves to connect their self-esteem and behaviour. The improved psychological state inevitably leads to a new level of physical and psychical activity. This psychosomatic circle helps the faster and more successful recovery, only if the patient gets back objective information about his condition and disease.

We conclude that patients with CAD after MI tend to develop further more the neurasthenic features typical for their personality. The level of the physical activity achieved at the end of the rehabilitation programme and, e.g., its objectifying at the end of the rehabilitation by VET improves the psychological state and the confidence of the patient.