The incidence of the behavioral types Anger-in and A in patients with cardiovascular diseases

Ioan Bradu Iamandescu¹, Alexandru Chitu¹,², Alice Cristina Barbu¹

¹University of Medicine “Carol Davila” Bucharest
²University of Bucharest, Faculty of Psychology

Abstract

The study reveals the possibility of dividing the patients with cardiovascular diseases in two groups regarding the psychological background. We have studied one group of 104 patients with hypertension and one group of 80 patients with myocardial infarction.

They were given two questionnaires to complete:
1. The Jenkins questionnaire (for A behavioral type)
2. The Anger-in questionnaire (for anger-in behavioral type)

By analyzing all the 184 questionnaires we have noticed that the percentage of the A behavioural type for hypertensive patients is 65.5% and for patients with myocardial infarction is 34.5%. It has been confirmed that the cases with myocardial infarction show major tendencies towards internalization in a percentage of 97.1% (anger-in behavioral type), unlike the hypertensive group (2.9%).

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1. Problem Statement

Is there a correlation between behavioural types, stress, and different diseases of the modern society?

Both psychologists and doctors were looking forward to having an answer for this question. Together they concluded that behavioural types can be related to cardiovascular diseases.
Any kind of stress can be produced by the continuous fight for body adaption to the environment when an imbalance between the environmental requirements and the ability of adaption of the organism, occurs.

Since the end of the last century Osler (1892) wrote: "Life in the speed and stress of modern life induce degeneration of the coronary arteries and it is not only widespread, but occurs in young ages. I think the nervous tension in which we are forced to live is responsible, more than food and drink, of heart disease."

Biochemical substrate of these changes is: higher release of catecholamines, with consequent increased peripheral vascular resistance and hence blood pressure, mobilization of free fatty acids and cholesterol, with increased atherogenesis, increased myocardial O2 consumption with occurrence of angina pectoris crisis, myocardial infarction and even sudden death.

"For this reason, epidemiological arguments, the high incidence of disease among some categories of subjects with major stress load, are complemented by laboratory studies able to highlight the physiopathological processes or ischemic coronary atherogenic role that occur during mental stress” (Iamandescu, 1993).

The onset of cardiovascular disease, mental stress is associated with long-acting complex of risk factors with a "voluntary" component (consciously assumed by that person): smoking, consumption of fats and / or overweight, heavy drinking, inactivity, reduced sleep (which, in turn, may be subject to physical stress).

Cardiovascular diseases have the biological and psychosocial factors as etiological factor. Among psychosocial factors, may be listed:
• Psychological characteristics - average intellectual level, native aggressiveness, easy demoralization;
• Social influence - low or very high socio-cultural status, with major responsibilities, middle-level occupations with high demands and, especially, with a very low possibility of professional control, repetitive tasks, time pressure, reduced decision-making opportunities.

Analyzing patient’s biography we noticed some correlations between psychological traumatic moments, family’s influence, romantic failures, or stressors in professional sphere. This led to the propagation of the echo of psychological stress to somatic vascular components.

Although while a predisposition is created to myocardial infarction, combined risk factors lead to changes in cardiac activity, acute myocardial infarction seems to be a spontaneous reaction against an intense stress factor.

The studied cases show that myocardial infarction was triggered as a result of psychic traumatic moments.

2. Purpose of Study

The study reveals the possibility of dividing the patients with cardiovascular diseases in two groups regarding the psychological background.

We started from the idea that any emotional imbalance leaves a mark on the soma. Reason is characteristic of men, and it is the most valuable trait that nature has endowed us. Unfortunately, the reason can not fully control our emotional states, and in these cases when personal experiences exceed the mental endurance threshold and reaches the state of stress, the echo of the imbalance is propagated to the organic components.

Controlling emotional expression is not a natural manifestation but a requirement.

And again the reason intervene. What brings us closer to the first stage of the biological progress is the fighting of the body, consciously or not, for self-preservation.
The opportunities for adaption to the environment are marked by the behavioural type of the individual.

_A behavioural type_

The profile of people with this type of behavior is emerging on the edge of obsessive tendencies to overcome their real development opportunities both professionally and emotionally. They present a constant state of irritability, insecurity, hostility, excessive competition and a persistent sense of urgency.

They are in a vicious circle built, most often unconsciously, around themselves, which manages to become gradually solid and be transformed into a form of rejection of others.

These persons are hyperactive, introverted, workaholic, overly organized, they easily lose their temper when their plans were changed by something they could not control.

Some people have a certain rigidity due to social or biological factors, others show a high vulnerability and a certain degree of malleability.

_Anger-in type_ can be considered the opposite of type A, subjects with this behavioural type have different physiological or emotional responses from those of the first category.

This psychological pattern is dominated by introversion, introspection feelings, understood by subjects as a way to adapt. This introspection, intentional or not, leads to a certain degree of emotional and physiological vulnerability.

This range of people has repeated and prolonged conflict in which aggressive tendencies are repressed constantly, a certain personality structure characterized by sensitivity, compulsive and stiffness. Psychological factors involved can lead to disruption and destruction of the ego's defensive systems that no longer can maintain defense mechanisms.

3. Research Methods:

We have studied one group of 104 patients with hypertension and one group of 80 patients with myocardial infarction from Bagdasar-Arseni Hospital, Bucharest, Department of Cardiology.

They were given two questionnaires to complete:

1. The Jenkins questionnaire (whose answers can prove the integration in the A behavioural type)
2. The Anger-in questionnaire (for anger-in behavioural type)

Each patient completed both questionnaires. The study techniques have been less formal, we had open discussions with patients, which in addition to the questionnaire responses, provided us information of their own biography that helped us complete the pattern that we imagine for each behavior type. There were some questions that attained the patients’ sensitive side and we could see their natural reactions, caused by the impact of the past personal experiences.

We have added to the initial structure of the questionnaires questions about life and personal experiences of patients to see if there was any key moment that triggered some major transformation in their psychological background.

Patients were cooperative and honest, some of them even showing the need for communication.

4. Findings:

By analyzing all the 184 questionnaires we have noticed that the percentage of the A behavioral type for hypertensive patients is 65.5% and for patients with myocardial infarction is 34.5%. It has been
confirmed that the cases with myocardial infarction show major tendencies towards internalization in a percentage of 97.1% (anger-in behavioral type), unlike the hypertensive group (2.9%). Most of the patients from both sections, specified that a strong emotional impact moment from their past experience could have been the trigger for their organic imbalance.

The occurrence of A behavioral type in the hypertensive patients reaches 65.5%, and the myocardial infarction cases show a morbid tendency to internalize (97.1%) (Table 1).

Table 1.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Hypertension</th>
<th>Myocardial Infarction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral types</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger-in type</td>
<td>2.9%</td>
<td>97.1%</td>
</tr>
<tr>
<td>A type</td>
<td>65.5%</td>
<td>34.5%</td>
</tr>
</tbody>
</table>

5. Conclusions

We may conclude that the category of individuals showing A behavioral type is liable to the hypertension.

Beside a vicious lifestyle, internalized individuals showing anger-in behavioral type may be prone to cardiovascular diseases such as myocardial infarction.

The study emphasizes the harmful effects of any kind of stress on human organism. Doctors and psychologists can work together for emotionally and organic healing of the patients.

We proposed to the patients who attended the study different ways to change their harmful lifestyle through various coping mechanisms, and avoiding excesses of all kinds. Patients have also proposed establishing a psychological practice in hospitals to help them in their problems of acceptance in their pathological condition and to optimize the doctor-patient communication.

This researching project aims, by enlarging the lot of patients, to demonstrate with a greater accuracy the importance of the presented data.

We will use a control group without cardiovascular disease to demonstrate the increased behavioral patterns, which we foresee, in the cases we have already studied.

References