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Research Article

Anger and Health Clinical and Personality Syndromes in Cardiac Transplant Patients

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Abstract

Introduction: Numerous studies have proliferated to clarify the personality types that show an implication in the development of cardiovascular diseases, especially type A and Type D personality, although in clinical practice we also find people with type C personality pattern, who although more predisposed to suffer cancer among other factors, we believe that it is also related to cardiovascular problems.

Objectives: To analyze the personality traits and the characteristic clinical syndromes inpopulation that will be subjected to cardiac transplantation.

To analyze if the perceived social support is related to a better coping with the disease.

Method

Sample: The group was composed of 10 patients who have been included in the rehabilitation program in pre-heart transplantation (7 women and 3 men).

Clinical interview

Instruments

- MCMIII MILLON Multiaxial Clinical Inventory of Millon [1].
- Analog scale of perceived social support (0 to 10).

Conclusion: By way of conclusion we can establish that the pattern of behavior type A [2], with characteristics of fidelity, competitiveness and hostility could be related to narcissistic traits.

The Type C Personality [3] characterized by emotional inhibition, being complacent and conformist, among other things, with clinical pattern of compulsive personality and type D personality [4] tendency to experience negative emotions and tendency to social inhibition, with somatoform clinical syndrome, anxiety, disthymia and severe clinical syndrome of major depression with autolytic ideation in our studied sample of patients awaiting heart transplantation.

No patient showed severe personality pathology.

52.9% of our sample presented relational difficulties in the cardiac pre-transplant.

If we improve anger management, our relationships and social support will improve, and this will result in a preventive improvement on our cardiovascular health.

Keywords: Personality; Health; Cancer; Anger; Hostility; Heart Disease; Social Support

Introduction

There is its reliable scientific evidence on which personality types show an implication in the development of cardiovascular diseases, especially type A and Type D personality, although in clinical practice we also find people with type C personality pattern that although more predisposed to cancer, we believe that it is also related to cardiovascular problems.

The World Health Organization [5] in which, under the title "The relationship between psychosocial risk factors and health outcomes of chronic diseases", they synthesize the evidence linking psychosocial factors with morbidity and mortality from cardiovascular diseases and cancer in the European area.

The three personality types that stand out the most at the level of health psychology arethe following:

Type A personality [6]. (Narcissistic traits)

In 1959, Friedamn and Rosenman cardiologists at Mount Sinai Hospital in San Francisco, California, described a style of behavior they called a type A behavior pattern, which is a risk factor or for ischemic heart disease. Type A people show increased autonomic and endocrine reactivity. They are characterized by their dominant, competitive and authoritarian style; great temporal pressure, so they become impatient and irritable. With difficulty knowing and expressing their emotions; great involvement in the work, performance and final results, rather than for the enjoyment of the activity while it is being carried out; they assume rest or leisure as a waste of time. They are energetic people, who speak loudly and quickly, are tense and impatient and undertake numerous tasks. With high need for achievement [7]. Studies have proliferated on the ira-hostility-aggression dimension within this type of personality, observing that hostility (cognitive component) is the one that causes the greatest impact on cardiovascular diseases.

Type C personality [8] emotional inhibition, complacent, conformist (compulsive traits).

El group of López [9], analyzed the five factors: Emotional Control, Rationality, Emotional Repression, Need for Harmony and Understanding that describe the construct Personality type C and after the analysis of structural equations indicated that only Emotional Control, Emotional Repression and Understanding are part of the construct.

Another group of researchers have postulated that it is the control or suppression of emotions such as anger that seems to particularly characterize the behavior of cancer patients [10]. The empirical findings of these authors would indicate that the suppression and control of hostile feelings (such as irritation or anger) would be carried out through rational behavior and trying to understand and treat others well. This last aspect has been considered as a tendency to maintain harmonious interpersonal relationships, even if others act against their own needs or desires [11], and a marked self-sacrifice [12].

Results were obtained that show the existence of significant associations between the characteristics of Type C and the presence of malignant cutaneous melanomas [13]; There are researches who argues that personalities prone to cancer and cardiovascular disorders must have clearly opposite characteristics[14]; and the other hand, others conclude that there is a strong correlation between rational and anti-emotional behavior and the incidence of cancer, considering that such behavior is consistent with Type C [15].

Personality type D [16] tendency to experience negative emotions and social inhibition

People with this type of personality, is characterized by a vulnerability to psychological stress, with the experimentation of intense negative emotions (negative affectivity) and, at the same time, the inhibition of its expression in interaction with other people (social inhibition). It would be the interaction, the synergistic effect, of both dimensions that can cause a form of chronic psychosocial stress, harmful to health [17].

This personality profile has been investigated mainly in patients with cardiac, immune, gastrointestinal, dermatological, respiratory and periodontal disease disorders, although cancer studies are the most numerous [18].

People high in negative affectivity (AN) present feelings of dysphoria, tension, worry, irritability and anger [19]. They also have a negative view of themselves, present somatic complaints, and an attentional bias that predisposes them to be more alert to negative stimuli in their environment, which could explain the greater reactivity to stressful situations, according to the authors of the research [20,21]. Social inhibition (SI) is defined as the predisposition to deliberately inhibit the expression of negative emotions in situations of social interaction.

These two dimensions AN and IS have been considered stable dimensions, while mood disorders are episodic and are usually influenced by environmental factors [22].

The potential mechanisms that relate type D personality with negative consequences for health are the following: psychophysiological and behavioral characteristics that would cause, cardiovascular reactivity, hemostatic changes, activation of the adrenal

pituitary hypothalamus axis, unhealthy lifestyle and this would lead to a lack of adherence to healthy habits that would have negative consequences on health [23].

People with type D personalities have been linked to higher levels of generalized anxietyand social anxiety [24].

An research analyzed this relationship in a prospective study of 97,253 women who participated in the Women's Health Initiative and did not have CVD or cancer at the time of joining the study. They observed that women with higher degrees of cynicism and hostility had higher ratesof CD, CVD mortality, and all-cause mortality [25].

Depression is common in individuals with heart disease, especially after MI, so that more than 1 in 5 patients meet the diagnostic criteria. Depression is also 3 times more frequent in patients who have suffered an acute MI than in the general population [26].

In terms of protective factors, we find that perceived social support, that is, having a good social support network, has a beneficial effect on the clinical evolution of different diseases [27,28]. Having a good social integration exerts a buffering effect of negative emotions that can interfere with coping with the disease and subsequent recovery. The research group of Lett [29] conducted a detailed review on social support and heart disease, observing that poor social support was associated with 1.5 to 3 times the risk of cardiovascular disease in both healthy populations and cardiac patients. In turn, it should be added that low perceived social support is related to depression.

The absence of support from the family increases psychological disorders in transplant recipients [30] and is also one of the most relevant predictors in the lack of therapeutic adherence by patients [31].

Objectives

To analyse the personality traits and the characteristic clinical syndromes inthe population that is going to be subjected to cardiac transplant.

To analyze if the perceived social support is related to a better coping with the disease.

Method

Clinical interview

Instruments

MCMIII MILLON Multiaxial Clinical Inventory of Million

- Spanish adaptation of the Multiaxial Clinical Inventory of Millon MILLON III [33].
- Self-applied inventory that includes the scales of Axis II, Clinical syndrome of Axis I with severe clinical syndromes and has 4 scales of validity. Cronbach's alpha coefficients in the Spanish typing sample are from 0.65 to 0.88. Test-retest reliability from 0.82 to 0.96.
- Analog scale of perceived social support (0 to 10).

Sample

The group was composed of 10 patients who have been included in the rehabilitation program in pre-heart transplantation (7 women and 3 men).

Patients who are candidates for heart transplantation have heart failure with a very depressed left ventricular ejection fraction and the highest percentage is due to ischemic heartdisease. In our sample it was 50%.

On the other hand, three patients spent a very long time on the transplant waiting list, caused among other factors by their immunological study.

Results

In the MCMI III de MILLON at the level of axis II, 30% of the patients present compulsive personality traits and another 20% present it in narcissistic personality. Compulsive people according to Millon's theory, have prudent, contradictory and perfectionist ways of acting, derived from a conflict between hostility towards others and fear of social disapproval, characteristics related to negative affectivity, inhibition. Social type D personality, rationality, and need for harmony, along with emotional control and repression of the type C behavior pattern and hostility (cognitive component) of type A personality (narcissistic traits). This ambivalence is resolved, suppressing their resentment by manifesting excessive conformism and demanding a lot from themselves and others. Their self-control helps them control intense feelings of rebellion. Behind this more socially acceptable image are deep feelings of anger and rebellion that sometimes overcome their restrictions and control.

30% present a significant clinical somatoform (78, 85, 78). This means that psychological conflicts are expressed by somatic coves, with fatigue and weakness, and great concern for their health of these three patients two of them, are in a more adverse situation, because their immunological markers, among other factors, delay their heart transplantation.

50% of the clinical anxiety syndrome with PREV scores higher than 75 (85, 80, 88, 88, 105).

Another 50% present as severe clinical syndrome 20% Major Depression (75, 88) with autolytic ideation and 30% dysthymic disorder (80, 83, 78).

After data analysis, we found characteristic clinical syndromes and striking personality traits.

Dysthymic syndromes, anxiety, somatoform along with major depression on the one hand and compulsive and narcissistic traits, are present significantly in the sample studied.

All these traits, together with the clinical syndromes found, are according to the 3 personality types that can favor cardiovascular diseases.

We believe that inadequate anger management is an underlying factor that must be addressed, because it occurs in the three personality types studied, with one related to a different dimension. External anger probably more present in the pattern of behavior type A (behavioral dimension l and cognitive (related to hostility)), internal and controlled anger in personality type C and D (affective/evaluative dimension).

Although Eysenck argued that personalities prone to cancer and cardiovascular disorders should have opposite characteristics, we believe that the background is the same, and that it is produced by poor anger management on both sides. In fact, in the type A behavior pattern, it is hostility that has been studied most as the main component of cardiovascular ischemic alterations. We follow the approach regarding the AHI syndrome (aggression, hostility, anger), which could be placed as (internalized anger), in fact hostility has to do with the cognitive dimension, which is described as a belief system about others, characterized by a certain cynicism (thought that others are selfish),[34] distrust and suspicion (thought that others will cause them harm) suspicion and resentment, along with some devaluation of others [35-37]. (On the other hand, emotional control, emotional repression and understanding(they also have to be related in one way or another to that controlled anger, and internalized of the type C personality construct, along with that need for harmony, which blocks the correct expression of anger (positive requests, assertiveness) and negative affectivity (tendency to experience negative emotions in a stable way and in a greater number of situations [38], present more feelings of dysphoria, tension, worry, irritability and anger [39] together with Social Inhibition, that is, the deliberate inhibition of expression of negative emotions in situations of social interaction in order to avoid disapproval or absence of reinforcement in situations of social interaction, between an alteration in social competence. As for the limitations of our work is the fact that we were not able to explore patients with specific questionnaires that measured the three types of behavior patterns and/or personality A, C, D. based on Millon's theory, solely when drawing conclusions.

The low size of our sample also advises us to take the results of our study with some caution, without being able to generalize our results, being necessary future research on this aspect.

	Social support	Personality	Clinical syndromes				Cardiac pathology	FEVI	COME ON
P.1	0		Anxiety 85	Somatomorfo 78	Distímico 80		C.I	25%	Yes
P. 2	5	Narcissistic 82					C.I	45%	Yes
P. 3	5		Anxiety 80				MCH MCR	C	Yes
P. 4	7							31%	No
P. 5	9		Anxiety 88	Compulsive 88			C.I	25%	Yes
P. 6	9		Anxiety 88	Compulsive 88	Distímico 83	Somatomorfo 78	C.I	24%	Yes
P. 7	10	Narcissistic 80					C.I	30%	No
P. 8	7		Anxiety 105	Major depression 88			C.I	19%	No
P. 9	2			Major Depression 75	Distímico 78	Somatomorfo 85	MCH	C	Yes
P. 10	7	Compulsive 91					D.A	C	Yes

Table 1: Abbreviations: C.I: Ischemic Heart Disease; MCH: Hypertrophic Cardiomyopathy; RCM: Restrictive Cardiomyopathy; LVEF: Left Ventricular Ejection Fraction; D.A: Arrhythmogenic Dysplasia; P: Patient; C: Preserved

Figure 1

Figure 2

Conclusions

Addressing anger management at the clinical level is essential in order to improve the prevention of physical diseases of different characteristics.

We know that hostility is the most influential characteristic within the type A behavior pattern for developing ischemic heart disease, (along with time pressure and competitiveness), which could be related to narcissistic personality traits.

In turn, both type D and type C personality would be related to negative emotions (sadness, anxiety, anger) that we find in the clinical syndromes of dysthymia, major depression and compulsive.

Poor perceived social support will cause dysphoric feelings of low mood that will favor heart disease.

We can conclude that we have found data, which expand the cardiovascular risk factors, contemplated so far, in the literature.

By way of conclusion we can establish that the pattern of behavior type A [40] (with characteristics of agresivity, competitiveness and hostility) could be related to narcissistic traits.

The Type C Personality [41] characterized by emotional inhibition, being complacent and conformist, among other things with compulsive traits (conflict in hostility towards others and fear of social disapproval, characterized by excessive conformism) and type D personality [42] tendency to experience negative emotions and tendency to social inhibition with somatoform syndrome, anxiety and depression.

52.9% of our sample presented relational difficulties before heart transplantation. If we improve anger development and management, relationships and social support will in turn improve. This will result in a preventive improvement on our cardiovascular health.

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