Available online at www.sciencedirect.com

ScienceDirect

Comprehensive Psychiatry 57 (2015) 16–20

COMPREHENSIVE PSYCHIATRY

www.elsevier.com/locate/comppsych

Predictors of suicidal ideation in coronary artery disease

Elisabete Rodrigues Nascimento[a,*], Ana Claudia Ornelas Maia[a], Gastão Soares-Filho[a], Antonio Egidio Nardi[a,b], Adriana Cardoso[a,b]

[a]Institute of Psychiatry, Federal University of Rio de Janeiro (IPUB/UFRJ), Rio de Janeiro, Brazil
[b]National Institute of Science and Technology for Translational Medicine (INCT-TM/CNPq), Rio de Janeiro, Brazil

Abstract

Context: In clinical practice, the importance of screening for anxiety and depression in patients with medical illness is highlighted. In many cases, the suicidal ideation makes up the framework of mental disorders, which may be exacerbated in these individuals.
Objective: To investigate the role of symptoms of mental disorders in the presence of suicidal ideation.
Methods: A total of 103 patients with diagnosis of coronary artery disease in cardiac treatment were interviewed for symptoms of anxiety and depression using the Beck Depression Inventory and Hospital Anxiety and Depression Scale. All patients were also analyzed for presence of suicidal ideation, wishes, attitude and suicidal plans using the Beck Suicidal Ideation Scale. The relationship between social and demographic variables and mental disturbances and the presence of suicidal ideation was assessed using chi-square test and coefficient of sperm. Logistic regression analysis was used to explain the change in the role of each of the variables in suicidal ideation.
Results: The results showed that predictors for suicidal ideation were isolated anxiety ($B = 0.29$; Wald 4.77; $p = 0.03$) with an odds ratio of 1.34 (CI 1.03–1.75) and isolated depression ($B = 0.33$; Wald 5.35; $p = 0.02$) with an odds ratio of 1.39 (CI 1.05–1.85). Frequencies of interaction depression and anxiety were higher among patients who were single, widowed and divorced. Chi-square test and the coefficient of sperm showed an association between marital status and suicidal ideation ($\chi^2(2) = 9.17$; $p = 0.01$).
Conclusion: Anxiety and depression are risk factors for isolated patients with suicidal ideation. Early clinical identification of mental disorders in patients with medical illness contributed to preventing the risk of suicide.

1. Introduction

Coronary artery disease (CAD) is a leading cause of cardiovascular death and the fourth largest in the ranking of diseases around the world [1,2]. Research in individuals over 40 years of age have been stepped up in the light of am increase in the number of acute myocardial infarction (AMI) and arterial hypertension cases as a result of a lifetime of stress, physical inactivity and inadequate diet [3].

Mental disorders such as depression and anxiety were studied as additional factors to CAD, where it was concluded that patients with CAD tend to experience more anxiety related to their cardiac symptoms [4]. On the other hand, the depressive symptoms present in the short term, tend to worsen state of health [5].

The lack of motivation, inability to concentrate and low power consumption can directly affect health behaviors, due to greater risk of non-adherence to medical recommendations, rehospitalization, increased perception of unexplained physical symptoms, less functional capacity, poorer quality of life and difficulty for participation of cardiovascular rehabilitation program [6–8].

Some indirect measures may be used to evaluate symptoms of depression in patients with chronic disease, such as the inability to get pleasure in conversations with roommates and family visits, the inability to experience pleasurable activities

We declare that all authors acknowledge that the material presented in this manuscript has not been published previously or in abstract form, or is simultaneously into consideration by any other journal.

This article has no relationship with any other published work, presented or proposed by our research team. We have other studies on suicide, but with population of patients with renal disease treated with hemodialysis.

* Corresponding author at: Institute of Psychiatry, Federal University of Rio de Janeiro, Laboratory of Panic and Respiration—INCT Translational Medicine, R Visconde de Pirajá, 407/702, Rio de Janeiro, RJ 22410-003, Brazil. Tel.: +55 21 25216147; fax: +55 21 25236839.

E-mail addresses: bete_nascimentopsi@ig.com.br (E.R. Nascimento), acornelas@mvmaia.com.br (A.C.O. Maia), galufo@gmail.com (G. Soares-Filho), antonioenardi@gmail.com (A.E. Nardi), adrianacardosorj@yahoo.com.br (A. Cardoso).

http://dx.doi.org/10.1016/j.comppsych.2014.10.017
0010-440X/

and lack of desire to make plans. However, some symptoms may be associated with increased risk of mortality, such as: indecision, insomnia, low self-esteem, hopelessness, loss of the ability to feel pleasure, thoughts of death and suicide [6].

An individual with suicidal ideation has plans and wishes to commit suicide, but still makes no attempt of doing it. Ideation is seen as a first stage before the suicide attempt. Most of the attempts occur during the first year after the onset of suicidal thoughts [9]. Risk factors include some clinical symptoms, previous attempts at suicide, depression, question related to the absence of social support and psychiatric disorders [10].

A population-based case–control study showed that suicide risk rate was high in the first month after myocardial infarction high (MI), both for patients with some mental disorder and for patients without mental illness, and the risk of suicide increased at least five years after MI [11]. Thus, symptoms of psychiatric disorders in patients after acute cardiac events, are particularly an issue of great importance.

The objective of this study is to evaluate the role of psychiatric and socio-demographic variables in the presence of suicidal ideation in patients of a coronary artery disease outpatient cardiology clinic, in order to improve the collection of data regarding the proposed theme and identify occurrences based on earlier diagnostic evaluations.

2. Methodology

A cross sectional study of 103 patients with coronary artery disease aged between 35 and 87 years, in a public health clinic, all diagnosed with coronary artery disease who were under medical supervision of a cardiologist, was conducted. The criteria for inclusion in this study were: have medical follow-up; have watched the initial interview and have it performed in its entirety; have sufficient cognitive capacity to understand the instructions given; and are 18 or over years old. Patients signed a consent form and were aware of the experimental protocol (approved by the Ethics Committee of the Universidade Federal do Rio de Janeiro) before the start of the participation.

Patients were evaluated with Mini International Neuropsychiatric Interview (MINI 5.0) [12]; this is considered to be an instrument that has the default template a short structured interview (approximately 25 minutes) for the assessment of the existence of Axis I psychiatric disorders according to DSM-IV and the 10th revision of International Classification Of Diseases (ICD-10), and in accordance with the criteria of cut-off point of the current risk of suicide, the scores are classified as follows: 1–6 = mild; from 6 to 9 = moderate and ≥10 = high.

The Beck Depression Inventory (BDI) [13] is an instrument applied to identify and quantify symptoms of depression. This consists of 21 items that assess cognitive components, affective, somatic and behavioral depression. The BDI is an investigation of sadness, pessimism, sense of failure, lack of satisfaction, a feeling of guilt, feeling of punishment, auto depreciation charges, suicidal ideas, bouts of crying, irritability, social downturn, indecision, distortion of body image, inhibition for work, sleep disturbance, fatigue, loss of appetite, weight loss, and somatic concern. For samples of patients with affective disorder the recommended cut-off points are as follows: 10, no depression or symptoms of depression minimal; 10–18, mild depression to moderate; 19–29, moderate to severe depression; and 30–63, severe depression [14].

For the evaluation of anxiety and depression, Hospital anxiety and Depression Scale (HADS) [15] was applied. This instrument consists of 14 questions – seven for anxiety and seven for depression – with a response scale ranging from zero to three, and maximum score for both mental symptoms. Scores of cut-off points for both subscales were: HAD-anxiety (HAD it)—without anxiety 0 to 8 and with anxiety, ≥9, and scale HAD-depression (HAD-D)—no depression, 0–8 and depressed ≥9.

Other instrument used was Beck Suicidal Ideation Scale (BSI). The BSI [16] is an instrument for measuring the presence of suicidal ideation, wishes, attitude and suicide plans. This scale was developed based on psychiatric patients, adults admitted and outpatients. The scale consists of 21 items, each with response alternatives 0 to 2 points; it assesses three dimensions of suicidal ideation: active, passive and prior suicide attempt. With a cut-off point of ≥8, suicidal ideation was considered clinically significant.

The social and demographic descriptive data, including gender, age, education, occupation, religion, children, psychiatric or psychological treatment past or current and the use of psychotropic substances were also checked by means of a registration form.

For statistical analysis descriptive statistics was used for social and demographic data, considering the raw data and percentage or mean values and standard deviation. The possible relationships between the various variables and the presence of suicidal ideation were evaluated by the chi-square test and coefficient of sperm; with p values <0.05 considered as statistically significant. Logistic regression was considered for explanation of the role of each of the variables in the variance of suicidal ideation.

3. Results

Of the 103 patients with coronary artery disease, 60 (58.3%) were women and 43 (41.7%) were men. The age ranged between 35 and 87 years (mean = 63.14; standard deviation = 12.76). In total, 55 (53.45%) were married, 87 (84.5%) had kids, 65 (63.1%) were catholic, 65 (63.1%), attended elementary school, and 48 (46.6%) were retired. The clinical aspects were anxiety (median = 5.81; standard deviation = 4.18 and range = 0 to 20) and depression (median = 4.52; standard deviation = 4 and range = 0 to17). These results are shown in Table 1.

The result of the analysis of the chi-square test and the coefficient of sperm showed an association between marital status and suicidal ideation ($\chi^2(2) = 9.17$; $p = 0.01$). However,