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ARTYKUŁ ORYGINALNY / *ORIGINAL ARTICLE*

Depression and anxiety in patients with coronary artery disease, measured by means of self-report measures and clinician-rated instrument

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Abstract

Background: The presence of depression symptomatology significantly deteriorates the prognosis for the patient. There are many instruments developed to measure depression and anxiety in clinical trials; however, the suitability of the specific scale for screening these disorders in cardiovascular patients is debatable. The aim of current study is to verify which of the major assessment instruments is the most relevant for the screening evaluation of depression and anxiety in patients with cardiovascular system diseases.

Aim: The sample studied consisted of 120 patients with stable coronary artery disease (CAD). They did not display serious psychiatric or somatic disorders.

Methods: To assess depressive and anxiety symptoms we used self-reporting measures (BDI-II, HADS, SSAI/STAI, and PHQ), the results of which were compared to results obtained on the basis of a clinician-rating instrument (HRSD).

Results: We found that depressive symptoms assessed on the basis of HRSD, BDI-II, and PHQ-9 were equivalent in results, while the results obtained in HADS-D were significantly lower. Anxiety symptoms were found at approximate levels in HADS, SSAI, and GAD-7. The assessment of somatic symptoms in patients with CAD indicates that 87.5% of the subjects reported somatic symptoms of various intensity.

Conclusions: Screening assessment of depression in patients with CAD gives different results depending on the tool used. We found that HADS significantly underestimates the percentage of patients with symptoms of depression in patients with CAD. Assessing anxiety symptoms with the aid of HADS gave outcomes close to the results gained by use of other tools.

Key words: depression, anxiety, screening, coronary artery disease

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INTRODUCTION

Depression and heart diseases are common and very often coexist. About 15–20% of hospitalised cardiac patients meet diagnostic criteria for a major depressive disorder, while about 25–65% of cardiac patients report at least one depressive symptom. In patients after coronary artery bypass grafting it was reported persistence incidental or chronic depression up to 24 months after surgery [1]. In contrast, in the general population 12-month prevalence rates of mood and anxiety range from 6.6% to 11.9%, and from 5.6% to 18.1% across surveys taken at the beginning of the 21 century in Europe, Australia, and the United States [2]. In a Polish study of healthy men over 55 years old in almost 3% moderate depression was diagnosed on the basis of the results from the Beck Depression Inventory (Polish version IA) [3].

The relationship between depression and heart disease is multidimensional. In healthy people depression increases the risk of coronary artery disease (CAD) and establishes an independent risk factor for coronary disease. On the other hand, in existing heart disease, depression predicts recurrent

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cardiac events or even cardiac-related death. As a chronic medical illness, cardiac disease can also predispose a patient to depression. Finally, depression decreases the quality of life and adherence to treatment. At the same time, coronary disease promotes sexual dysfunction, which is an additional factor worsening the quality of life, and thus promoting depression [4].

Despite the prognostic importance of depression in cardiac patients, the studies indicate that depressive symptoms and disorders are diagnosed in less than 15% of cases [5]. Recognition of depressive symptoms in cardiac patients is particularly difficult because symptoms of depression and heart disease may overlap, so patients can be unaware of being depressed.

Statistics of the co-occurrence of depression and anxiety suggest that they often occur together. The probability of anxiety disorders in persons with a history of depressive episodes is estimated at 47–58% throughout life. On the other hand, 56% of patients with anxiety disorder develop depression [6]. Not only is the impact on the individual significant, but also the prevalence of comorbid anxiety and mood disorders is very high. Since depressive disorder and anxiety are often accompanied by medically inexplicable somatic symptoms, they become even more meaningful problems in primary care.

There are many instruments (both observational and self-report) designed to measure depression and anxiety in clinical trials. However, the results of screening for these disturbances in cardiovascular patients are inconsistent, including patients with diagnosed depression, which changes in its level depending on the instruments used.

In our paper we compare five major self-reporting assessment instruments: the Beck Depression Inventory-II (BDI-II), the Hospital Anxiety Depression Scale (HADS), the Patient Health Questionnaire (PHQ), the Spielberger State Anxiety Inventory (SSAI), and the Trait (STAI) Anxiety Inventory. Then the results were compared with results obtained by the clinician-rated instrument — the Hamilton Rating Scale for Depression (HRSD). Psychiatric diagnosis requires a full psychiatric examination; however, in terms of hospitalisation it is not possible to carry out such a study. Preliminary assessment and predicting patients who require continued and complete diagnostics is extremely important. The main objective of the research is to compare the above tools in order to verify which of the self-reporting instruments is the most useful for screening evaluation of depression in cardiac patients during hospitalisation. An additional objective was to evaluate the incidence and severity of anxiety, and somatic symptoms in these patients.

METHODS

Study sample

The sample group consisted of 120 consecutive patients with stable CAD (confirmed by coronary angiography) and without chronic heart failure (HF), who were hospitalised in the Department of Cardiology, Medical University of Gdansk, to undergo elective coronary angiography or, if necessary, elective percutaneous coronary intervention (PCI). The research project was approved by the Bioethics Committee of the Medical University of Gdansk.

Table 1. Sociodemographic characteristics of the group of patients

Patient characteristics	Total group (n = 120)
Age [year]	62 ± 11
Gender:	
Male	67%
Age	61 ± 11
Female	25.6%
Age	64 ± 12
Family status:	
Single:	27%
Male	16%
Female	50%
Married/partnership relation:	73%
Male	84%
Female	50%
Education:	
Primary:	35%
Male	42%
Female	20%
High school:	40%
Male	32%
Female	55%
Higher:	25%
Male	25%
Female	25%

Data are presented as the number (%) of patients or means ± standard deviations

The average age was 62 ± 11 years. Among the patients, 80 (67%) persons were men aged from 39 to 87 years (mean age: 61 ± 11 years), and 40 (33%) persons were women aged from 36 to 82 (mean age: 64 ± 12 years). Sociodemographic characteristics of the patients are presented in Table 1. Eligibility criteria were taken as follows: age (18 years and older), no major depression diagnosed previously, a lack of serious psychiatric disorders, no substance abuse, and the ability to complete questionnaires. Patients who were suffering from cardiac illnesses other than CAD and those suffering from any brain injury, dementia, or a terminal illness were excluded from the study. The medical interview and questionnaire-filling took place a day after the coronary angiography or PCI.

Research tools

To assess depressive and anxiety symptoms, we chose the commonly used self-assessing measures, but for verification

a clinician-rated instrument was used. BDI-II, HADS, and PHQ-9 are the instruments endorsed by the National Institute for Health and Clinical Excellence for application in primary care to measure baseline depression severity and responsiveness to treatment.

BDI-II is the gold standard of self-rating scales, designed to measure depressive symptoms severity in the preceding two weeks. It assesses the severity of 21 depression symptoms rated on a four-point scale (0–3). Its items assess cardinal somatic, as well as cognitive and affective symptoms of depression. In screening a total score of 14 or higher is the most widely used cut-off for clinically significant depression. The following guidelines have been suggested to interpret BDI-II: scores of 0–13 do not indicate the presence of depression, scores of 14–19 suggest mild depression, scores of 20–28 indicate moderate depression, and scores of 29–63 indicate severe depression [7]. In our study, we used the Polish version of BDI drawn up by Parnowski and Jernajczyk [8].

HADS is the simplest and the most widely used tool. It is a 14-item screening instrument designed to identify symptoms of anxiety and depression in patients with serious physical health problems. The authors [9] suggest that a score of 8–10 should be interpreted as a mild depression or a low level of anxiety or symptoms, a score of 11–15 should be interpreted as a moderate depression, and a score ≥ 16 should be interpreted as a severe depression or a high level of anxiety symptoms. In our study, we used the Polish version of the Hospital Anxiety and Depression Scale translated by Majkowicz [10] and validated by Wichowicz and Wieczorek [11].

The PHQ is a diagnostic tool based on the Primary Care Evaluation of Mental Disorders (PRIME-MD) — this instrument was used by clinicians as a structured interview guide. PHQ is a validated self-administered version of PRIME-MD [12]. The tool has five modules covering five common types of mental disorders: depression, anxiety, somatoform, alcohol, and eating. Each PHQ module can be used separately: as a depression subscale (PHQ-9), as a generalised anxiety disorder subscale (GAD-7), or as a somatisation and somatoform disorder subscale (PHQ-15). This tool is recommended by the American Heart Association as a depression screening test in patients with diseases of the cardiovascular system. The typical cut-off points of 5, 10, and 15 represent mild, moderate, and severe levels of symptom severity. In our study, we used the Polish version of PHQ translated by the MAPI Research Institute, which is free to download on the PHQ website (www.phqscreeners.com). The analysis of psychometric properties of the Polish version was made for the PHQ-9 from the three independent parts of PHQ [13].

SSAI/STAI is a 40-item self-report assessment device, which includes separate measures of state (SSAI) and trait (STAI) anxiety. The State Anxiety Scale (S-anxiety) evaluates the current state of anxiety, asking how respondents feel "right now", using items that measure subjective feelings of apprehension, tension, nervousness, worry, and activation/arousal of the autonomic nervous system. The Trait Anxiety Scale (T-anxiety) evaluates relatively stable aspects of "anxiety proneness," including general states of calmness, confidence, and security. The patient determines which of the four descriptors best indicates the degree of his/her emotion (score 1–4). Responses for S-anxiety scale assess intensity of current feelings "at this moment": from 1 = not at all to 4 = very much so. Responses for the T-anxiety scale assess frequency of feelings "in general": from 1 = almost never to 4 = almost always. Scores ≥ 30 suggest moderate anxiety and scores ≥ 45 suggest severe anxiety [14]. In our study, we used the Polish version of the SSAI/STAI drawn up by Sosnowski and Wrześniewski [15].

HRSD is one of the earliest scales developed for measuring depression. It is a clinician-rated scale aimed at assessing depression severity among patients. Having the form of a structured interview, the tool enables observation of a patient as well as a valid and objective assessment of the possible symptoms. The total score is obtained by summing up the score for each item. Scores range from 0 to 4 (from 0 = none/absent to 4 = most severe) or from 0 to 2 (from 0 = none/absent to 2 = severe). Although the HRSD version lists 21 items, the scoring is based on the first 17 items, and the final scores can range from 0 to 54. There are several different cut-off scores. The original description suggested the following cut-off scores: 0–7, minor or no depression; 8–13, mild depression; 14–18, moderate depression; 19–22, severe depression; and ≥ 23, very severe depression [16]. Most clinicians agree that cut-off scores between 0 and 6 do not indicate the presence of depression, scores between 7 and 17 indicate mild depression, scores between 18 and 24 indicate moderate depression, and scores over 24 indicate severe depression. In our study, we used the Polish version of the HRSD verified in 1997 by the Institute of Psychiatry and Neurology in Warsaw.

Statistical analysis

Patient characteristics are described as either dichotomous or continuous variables. The results are expressed as arithmetic means and standard deviations, or as a proportion (%). Correlation analyses were obtained on the basis of Pearson's analysis. The results were considered significant when the p value was less than 0.05. Statistical data were analysed with STATISTICA (data analysis software system) version 6.1, manufactured by Stat Soft, Inc. (2003).

RESULTS

Assessment of depression

As illustrated in Table 2, the assessment of depressive symptoms in patients with stable CAD showed quite similar results regardless of the tool used. The proportion of patients who did not have depression (the results below cut-off) identified by HRSD, BDI-II, or PHQ-9 amounted, respectively, to 69%, 68%, and 62.5%. Only the result obtained with the HADS-D

Table 2. Assessment of the presence of depressive symptoms and their severity depending on the tool used

	HRSD		BDI-II		HADS-D		PHQ-9	
	%	n	%	n	%	n	%	n
Without depression	69	83	68	82	92.5	111	62.5	75
Depression total	31	37	32	38	7.5	9	37.5	45
Mild depression	23	28	30	36	7	8	25	30
Moderate depression	7	8	1	1	1	1	7.5	9
Severe depression	1	1	1	1	0	0	5	6

HRSD — Hamilton Rating Scale for Depression; BDI-II — Beck Depression Inventory-II; HADS-D — Hospital Anxiety and Depression Scale-Depression subscale; PHQ-9 — The Patient Health Questionnaire-Depression subscale

scale was significantly different ($p < 0.02$) and amounted to 92.5%. The assessment based on BDI-II showed a dominant proportion of patients with mild depression, while the percentage of patients diagnosed with moderate or severe depression was minor. The results obtained on the basis of the HADS scale, where the percentage of patients with depression (from mild to severe) was very low (Table 2), are plainly different.

Correlation analyses show positive correlations between all the tests. The recorded correlations vary in strength: from weak (< 0.5) between HADS-D and HRSD, HADS-D and BDI-II, and HADS-D and PHQ-9, to strong (> 0.5) between HRSD and BDI-II, HRSD and PHQ-9, and BDI-II and PHQ-9 (Table 3).

Table 3. Correlations between the particular tools testing the presence of depressive symptoms

	HADS-D	BDI-II	HRSD	PHQ-9
HADS-D	1.0000			
P	—			
BDI-II	0.3192	1.0000		
P	0.000	—		
HRSD	0.3742	0.6068	1.0000	
P	0.000	0.000	—	
PHQ-9	0.3835	0.5182	0.6883	1.0000
P	0.000	0.000	0.000	—

Marked correlations are significant $p < 0.05$; abbreviations as in Table 2

Assessment of anxiety syndromes and their severity

The assessment of anxiety symptoms in patients with stable CAD is shown in Table 4. The proportions of patients who had no evidence of anxiety symptoms are similar in the case of HADS, SSAI, and GAD-7, and amount to 62%, 62.5%, and 63%, respectively. No statistical differences were observed between them. The proportions of patients with anxiety symptoms were also similar. However, these tests vary in accuracy when assessing symptom severity, and therefore severities of symptoms were diagnosed differently depending on whether the study was based on HADS-A or on GAD-7. GAD-7 revealed a higher proportion of patients with moderate or severe symptoms than HADS-A did. The evaluation based on HADS-A discloses the majority of patients who had low level of anxiety (28%), and simultaneously minorities of patients with moderate or high levels of anxiety, respectively, in 7% and 3% of the clinical group. The evaluation on the basis of GAD-7 indicated low level of anxiety in 15%, moderate in 12%, and high in 10% of patients with stable CAD. In the study based on SSAI 25% of patients had low/moderate level of anxiety, and 12.5% had high level of anxiety. Considering the differences between the scales the ranges obtained on

Table 4. Assessment of the presence of anxiety symptoms and their severity depending on the tool used

	HADS-A		SSAI		STAI		GAD-7		GAD-7 (p)		GAD-7 (a)	
	%	n	%	n	%	n	%	n	%	n	%	n
Without anxiety	62	74	62.5	75	42.5	51	63	76	79	95	75	90
Anxiety total	38	46	37.5	45	57.5	69	37	44	21	25	25	30
Low level of anxiety	28	34	25	30	44.5	53	15	18	11	13	18	22
Moderate level of anxiety	7	8					12	14	10	12	7	8
High level of anxiety	3	4	12.5	15	13	16	10	12	0	0	0	0

HADS-A — Hospital Anxiety and Depression Scale-Anxiety subscale; SSAI — Spielberg State Anxiety Inventory; STAI — Spielberg Trait Anxiety Inventory; GAD-7 — Generalised Anxiety Disorder Scale; GAD-7 (p) — Generalised Anxiety Disorder Scale, panic subscale; GAD-7 (a) — Generalised Anxiety Disorder Scale, anxiety subscale

the basis of SSAI and GAD-7 are similar, although in the case of GAD-7 we observed slightly higher proportion of patients with high levels of anxiety (12.5%). The results obtained on the STAI scale differed plainly from results of other scales because this inventory examines general anxiety — a variable that is defined and understood as a relatively permanent personality trait. In patients with cardiovascular diseases (CVD) anxiety as a trait was present in 57.5% of people, among whom 44% showed anxiety at a low/moderate level, and 13% at a high level. The GAD-7 scale allows for differentiation between anxiety disorders, such as GAD and panic disorder. The results of the GAD-7 subscales indicate that panic disorder was present at low level in 11% of patients, and at moderate level in 10%. Symptoms of GAD were presented in 18% of patients at low level and in 7% at a moderate level. For both panic disorder and GAD none of the patients reported high levels of symptoms (Table 4).

Correlation analyses show positive but relatively poor correlations between all the tests (Table 5). The correlation coefficient between STAI, and GAD-7 (a), SSAI and HADS-A was high (> 0.5), while between the other tests it was low (< 0.5).

Table 5. Correlations between the particular tools testing the presence of anxiety symptoms.

	HADS-A	SSAI	STAI	GAD-7 (p)	GAD-7 (a)
HADS-A	1.0000				
P	—				
SSAI	0.4715	1.0000			
P	0.000	—			
STAI	0.5747	0.5922	1.0000		
P	0.000	0.000	—		
GAD-7 (p)	0.4815	0.1946	0.2536	1.0000	
P	0.000	0.032	0.005	—	
GAD-7 (a)	0.4886	0.4443	0.5316	0.3706	1.0000
P	0.000	0.000	0.000	0.000	—

Marked correlations are significant p < 0.05; abbreviations as in Table 4

Assessment of somatisation and somatoform disorders

The results we obtained indicate that a high percentage of patients with stable CAD suffer from a significant amount of somatic symptoms, which suggests potential somatisation and somatoform disorders. Only 22.5% of patients rated the severity of somatic symptoms on the minimum level, and they considered the intensity of these symptoms as meaningless to themselves (Table 6). Most frequently a low level of the symptoms (37.5%) was recorded, while moderate and high levels of symptoms were observed in 27.5% and in 12.5% of patients, repectively. Correlation studies show positive but relatively poor correlations (< 0.5) between PHQ-15 and all other tests, excluding HADS-D (Table 7).

Table 6. Assessment of the presence of somatisation and somatoform disorder

	PHQ-15
Minimal symptoms	22.5% (n = 27)
Low level of symptoms	37.5% (n = 45)
Moderate level of symptoms	27.5% (n = 33)
High level of symptoms	12.5% (n = 15)

PHQ-15 — Patient Health Questionnaire, somatisation and somatoform disorders subscale

DISCUSSION

The primary aim of the research is to facilitate effective evaluation of depression and anxiety symptoms in patients with CVD. In the case of using tools for screening it is particularly important that all the psychometric requirements are satisfied. Patients should find the questionnaire user-friendly, the instructions easy to follow, and the questions understandable and relevant to their problems. It is also crucial that the scale is brief enough to allow for its routine administration, and that it provides clinically useful information to increase the efficiency of medical evaluation. All of the used self-report instruments meet the above requirements.

However, all self-report questionnaires suffer from one essential limitation — some individuals cannot complete them due to illiteracy, physical debility, or compromised cognitive functioning. Therefore, besides filling in the questionnaires, each patient was evaluated by a qualified clinical psychologist who rated the observation scale (HRSD).

We revealed that the results obtained by means of HRSD, BDI-II, STAI, and PHQ are approximate in terms of the proportions of patients having depressive and/or anxiety symptoms. The results gained on the basis of HADS are different and lead us to the conclusion that no depression is

Table 7. Correlations between the particular tools

	HRSD	HADS-A	HADS - D	BDI-II	SSAI	STAI	PHQ-9	GAD-7 (p)	GAD-7 (a)
PHQ-15	0.4001	0.3504	0.0730	0.2862	0.2305	0.3778	0.4730	0.2960	0.3280
P	0.000	0.000	0.426	0.001	0.011	0.000	0.000	0.001	0.000

Marked correlations are significant p < 0.05; abbreviations as in Tables 2 and 4

present in over 90% of people in the group, while the results from other self-report scales ranged from 62.5% (PHQ-9) to 68% (BDI-II). According to the observation scale (HRSD), 69% of patients did not have depressive symptoms. These results suggest that studies based on HADS significantly underestimate the percentage of patients with depressive symptoms in subjects suffering from CAD. This is consistent with previous observations, in which the sensitivity and specificity of HADS were insufficient at the cut-off at seven. It should also be noted that HADS omits questions regarding somatic symptoms of depression, and this may be the cause of much lower results than those obtained on the basis of other tools.

A systematic review focusing on the adequacy of screening methods for patients with CVD identified inconsistencies in the performance and in the optimal thresholds of these instruments between samples. The results obtained on the basis of the standard cut-off point (≥ 6) are consistent with HRSD and BDI-II, which confirms the earlier observations.

In our study, we found that the proportion of patients with depressive symptoms differs highly depending on the tool used. We found that the HADS score (8%) differs significantly from the scores obtained with the aid of other tools: the result for BDI-II was 31%, and the ones for PHQ-9 were 37.5% and 24%, depending on whether the cut-off point was ≥ 6 or ≥ 10, respectively. Other studies [17] reported prevalence rates for depression in CAD ranging from 17% to 27%.

We also found that HRSD, BDI-II, HADS-D, and PHQ-9 differ in the proportions of people classified with mild, moderate, or severe depression. The findings correspond with previous observations in primary care and show that inconsistencies in the categories may also be seen in people with CAD. In each case, the results obtained with HADS-D were significantly lower than the results from the use of other scales, suggesting that HADS is not an effective and satisfactory tool for assessing CAD patients with comorbid depression. Also, research conducted by Meader et al. [18] identified the diagnostic superiority of PHQ-9 over HADS-D among patients with medical comorbidities. Similar conclusions were drawn by Haddad et al. [19], who compared diagnostic values of these tools in patients with CAD.

The second aim of the study was to assess symptoms of anxiety in patients with CAD, using the available tools. Anxiety disorders used to affect up to 20% of patients with CAD. Generalised anxiety disorder often co-occurs with other anxiety disorders, with point prevalence rates ranging from 5% [20] to 12% [21]. Although anxiety, when compared to depression, has received significantly less attention in CAD patients, emerging data suggest that anxiety disorders are associated with an increased risk of all-cause mortality and with major adverse cardiac events independently of disease severity, depression, and adverse health behaviours. Anxiety symptoms also predict poor clinical or patient-centred outcomes.

In our study, we found that anxiety symptoms appeared in 38% (HADS-A), 37.5% (SSAI/STAI), and 37% (GAD-7) of the subjects. Another study, performed among patients admitted for acute myocardial infarction (MI) within 72 h of symptom onset [22], reported 69% of patients with elevated symptoms of anxiety and 50% of patients with anxiety disorders. However, 58% and 60% of patients suffering from stable HF had, on the one hand, positive screening results for depression and/or anxiety disorders on a telephone interview, but, on the other hand, they had diagnoses of depression and/or anxiety previously documented and they received mental health treatment, respectively. The significantly lower results obtained in this study are probably sample-related. Our clinical group consisted of patients with stable CAD. In this group the sense of threat associated with the disease is lower than in the case of MI or HF patients.

The results depend on the type of scale used to assess symptoms severities. The results indicate that the largest group of patients had low level of anxiety (28%), while the smallest group of subjects had a high level of anxiety, identified in 3%. These results differ significantly from those received in SSAI and GAD-7, where the proportions of patients who experienced a high level of anxiety was 12.5% and 10%, respectively. The GAD-7 questionnaire is the only instrument from among the tools undergoing study which allows for differentiating between GAD and panic disorder. We found that the total percentage of patients suffering from GAD and panic disorders was similar and amounted to 25% and 21%, respectively. Our results are much higher than those achieved by other researchers. Parker et al. [23] found higher prevalence rates of GAD (12%) and social phobia (9%), and comparable prevalence rates of agoraphobia (2%) and panic disorder (2%) in patients with acute coronary syndromes, using the Composite International Diagnostic Interview. Tully and Penninx [21], who based their research on the Mini International Neuropsychiatric Interview, reported rates of GAD (10%), agoraphobia (4%), and social phobia (3%) in patients awaiting coronary revascularisation procedure [21]. These data suggest that the prevalence of anxiety disorders can be different across different populations of CAD patients.

Another objective of the study was to determine the prevalence of somatic symptoms in patients with stable CAD. Research shows that at least one third of somatic symptoms can not be medically explained. Somatisation is the combination of medically unexplained somatic symptoms, psychological distress, and health-seeking behaviour. It is present in at least 10% to 20% of primary care patients. Along with depression and anxiety, somatisation constitutes the most common psychiatric problem seen in primary care. PHQ-15 is an instrument that records the inconvenience of 15 symptoms. It includes: somatic symptoms such as back ache, limb pain, or chest pain; and cardiovascular system symptoms such as pal-

pitations and breathlessness; gastrointestinal symptoms such as abdominal pain, nausea, and disordered bowel function, together with sexual dysfunction, lethargy, and headache. In our study low and moderate levels of the symptoms were observed in 37.5% and in 27.5% of patients, respectively, while high levels of the symptoms was observed in 12.5% of patients with CAD. This is much more than in primary care patients [24].

Limitations of the study

A limitation of the study is the possible impact of cognitive impairments common in patients with CVD. These impairments make the questions included in the questionnaire difficult to understand and can influence the result of the tool [25]. Another limitation is the timing of measurement (right after angioplasty), which may have influenced the results obtained. However, our aim was to evaluate disturbances in patients with stable CAD, which in contact to health care is limited to outpatient examinations or brief hospitalisation, usually lasting no more than two days.

The current study was limited to screening for the most common mental disorders. The next step will be a more detailed analysis of depression and anxiety. However, we believe that, despite some limitations, the results of our study will increase the knowledge on the evaluation of mental disorders in somatic diseases.

CONCLUSIONS

Although we found significant relationships among all the screening tools, the results that we obtained using these instruments were highly diverse. The results concerning the presence or the absence of depression in the study conducted with HRSD, BDI-II, and PHQ-9 were approximate, whereas HADS significantly underestimated the percentage of people with symptoms of depression among patients with CAD. Also the assessment of the severity of depression with the help of HRSD, BDI-II, HADS, and PHQ-9 gave inconsistent results, which suggests that if depression is comorbid with CAD it becomes heterogeneous and more complex than in patients without CAD. All self-rating anxiety scales analysed in the present report gave similar scores for the presence or the absence of symptoms, but the scales differed in the assessment of the severity of the disorder.

The prevalence of somatic symptoms in patients with CAD is much greater than that observed in primary health care, which suggests a higher potential presence of somatisation and somatoform disorders in patients with stable CAD.

The PHQ is the only test that examines the three most common psychiatric problems: depression, anxiety, and somatic symptoms. It also seems to be effective, accurate, and reliable in patients with diseases of the cardiovascular system.

Conflict of interest: *none declared*

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Ocena depresji i lęku u pacjentów z chorobą wieńcową na podstawie skal samoopisowych i skali obserwacyjnej

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Streszczenie

Wstęp: Związek między depresją a chorobami serca jest złożony i wielokierunkowy. Istnieje wiele narzędzi służących do diagnozy depresji i lęku, jednak badania przesiewowe w kierunku depresji u pacjentów z chorobami układu sercowo-naczyniowych dają zróżnicowane i niespójne wyniki w zależności od użytego narzędzia.

Cel: Celem badania było porównanie narzędzi powszechnie stosowanych w badaniach klinicznych do oceny depresji i lęku.

Metody: Badana grupa składała się z 120 pacjentów ze stabilną chorobą wieńcową, bez poważnych chorób psychiatrycznych i somatycznych. Do oceny depresji i lęku wykorzystano skalę obserwacyjną HRSD oraz skale samoopisowe: BDI-II, HADS, SSAI/STAI, PHQ.

Wyniki: W badanej grupie depresja była obecna u 31% (HRSD), 32% (BDI-II), 37,5% (PHQ-9) i 8% (HADS) pacjentów. Objawy lęku występowały u 62% (HADS), 62,5% (SSAI), 42,5% (STAI) i 63% (GAD-7) pacjentów z chorobą wieńcową. Objawy somatyczne stwierdzono u 22,5% osób na minimalnym poziomie, u 37,5% na niskim poziomie, u 27,5% na poziomie umiarkowanym oraz u 12,5% chorych na poziomie wysokim.

Wnioski: Ocena obecności zaburzeń depresyjnych daje zróżnicowane wyniki w zależności od użytego narzędzia. W przypadku badania przy użyciu HADS odsetek pacjentów z zaburzeniami depresyjnymi był znacznie niższy w porównaniu z wynikami uzyskanymi na podstawie HRSD, BDI-II i PHQ-9, podczas gdy ocena obecności objawów lęku dała wyniki zbliżone niezależnie od użytego narzędzia. Nasilenie objawów somatycznych u osób ze stabilną chorobą wieńcową jest znacznie większe niż obserwowane u pacjentów podstawowej opieki zdrowotnej.

Słowa kluczowe: depresja, lęk, badania przesiewowe, choroba wieńcowa

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