

STUDYING THE LEVEL OF ANXIETY AND DEPRESSION IN PATIENTS WITH CHRONIC SOMATIC PATHOLOGIES

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ABSTRACT

Introduction. Among numerous emotional conditions found in somatic patients are, first of all, emotional pressure, depression, aggression, frustration, and emotional stress described as anxiety. Many authors analyze the role of negative emotional conditions with respect to the development of psychosomatic diseases.

Aim. The aim of this paper was to study the level of anxiety and depression in patients with ischemic heart disease (IHD), chronic obstructive pulmonary diseases (COPD), and asthma.

Materials and methods. By means of the Hospital Anxiety and Depression Scale (HADS) (Zigmond A., Snaith R., 1983) we investigated 68 IHD patients, 52 COPD patients and 57 asthma patients. The control group consisted of 30 healthy people comparable with respect to sex and age with the patients studied.

Results and discussion. The analysis of particular indicators taken from the HADS shows that patients with IHD, asthma, and COPD exhibit clinical levels of anxiety significantly exceeding the respective indicator in the control group ($\chi^2=7.9$, $p<0.05$). However, these levels are higher in IHD, than in asthma and COPD ($\chi^2=14.7$, $p<0.001$). According to the test, in COPD there is a tendency towards an increased clinical level of depression in comparison with IHD (>0.1), whereas this indicator shows normal and subclinical values in asthma.

Conclusions. Thus, we have established that disturbing and depressive frustrations occur more frequently in patients with chronic somatic pathologies than among healthy subjects. It is obvious that the analyzed emotional frustrations negatively affect the formation of an internal picture of the disease and, also, patients' reactions to treatment.

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Timely diagnostics and targeted corrections of anxiety and depression in patients with somatic pathologies will allow physicians to improve both treatment results and a patient's quality of life.

Key words: ischemic heart disease (IHD), chronic obstructive pulmonary diseases (COPD), asthma, anxiety, depression

INTRODUCTION

Among numerous emotional conditions found in somatic patients are, first of all, emotional pressure, depression, aggression, frustration, and emotional stress described as anxiety [1, 10, 16, 20]. Many authors analyze the role of negative emotional conditions with respect to the development of psychosomatic diseases [1, 2, 13, 17, 19]. It can be assumed that the most significant consequences of such diseases as ischemic heart disease (IHD), asthma, and chronic obstructive pulmonary diseases (COPD) involve the impossibility of carrying out social interactions in conformity with patients' ages as well as social and economic positions [4, 5, 12, 14, 15, 18]. However, the entire spectrum of emotional disturbances exhibited by these patients is still insufficiently studied [3, 9, 12, 15, 19]. Thus, frustration, its structure and degree of expressiveness are hardly studied in depth. The issues referring to the presence of mental frustrations and their features observed in the given category of patients are insufficiently examined. There are no accurate data about emotional disturbances, mental frustrations, and indicators of social activity in patients with IHD, asthma, and COPD. It is obvious that the received data will help towards designing programs of social adaptation for patients suffering from these diseases, since it is expedient to recognise the social adaptations of patients as the major problem to be addressed by public health services [4, 7, 8, 10, 11, 13, 15, 16, 20].

AIM

The aim of this research was to study the level of anxiety and depression in patients with IHD, COPD, and asthma.

MATERIALS AND METHODS

By means of the Hospital Anxiety and Depression Scale (HADS) [20] we investigated 68 IHD patients, 52 COPD patients, and 57 asthma patients. The control group consisted of 30 healthy people comparable with respect to sex and age with the patients studied.

RESULTS AND DISCUSSION

The results obtained by the application of the HADS revealed that among IHD patients a normal level of anxiety was exhibited by 39.7% of such patients, a subclinical level of anxiety by 10.3% of such patients, and a clinical level of anxiety by 50.0% of such patients. A normal level of depression was revealed in 72.6%, a subclinical level in 21.0%, and a clinical level of depression was revealed in 6.4% of those patients with IHD. The respective data are presented in Tab. 1.

Tab. 1. Indicators of anxiety and depression in IHD patients according to the HADS

Levels	IHD patients				Control			
	anxiety		depression		anxiety		depression	
	abs.	%	abs.	%	abs.	%	abs.	%
Normal level	27	39.7	45	72.6	19	63.3	27	90.0
Subclinical level	7	10.3	13	21.0	9	30.0	3	32.4
Clinical level	34	50.0	4	6.4	2	6.7	0	0

When analyzing these indicators, one may observe that clinical levels of anxiety and depression are significantly higher in patients with IHD in comparison with the control group ($\chi^2 = 24.2$, $p < 0.001$). However, anxiety indicators (both at subclinical and clinical levels) exceed the level of indicators of depression.

Among patients with asthma, 59.6% of the respondents had normal levels of anxiety, 22.8% expressed subclinical levels of anxiety, and 17.7% of the respondents showed clinically expressed anxiety.

The clinical level of depression was absent among these patients; the subclinical level was light in 38.8% of the cases, and 61.4% of patients with asthma revealed a level of depression corresponding to the norm according to the applied test (Tab. 2).

On the basis of the presented data it can be observed that in asthma patients, due to the absence of a clinical level of depression according to the applied test, their clinical level of anxiety significantly exceeds this indicator in the control group ($\chi^2 = 6.2$, $p < 0.05$).

Tab. 2. Indicators of anxiety and depression in asthma patients according to the HADS

Levels	Asthma patients				Control			
	anxiety		depression		anxiety		depression	
	abs.	%	abs.	%	abs.	%	abs.	%
Normal level	34	59.6	35	61.4	19	63.3	27	90.0
Subclinical level	13	22.8	22	38.8	9	30.0	3	32.4
Clinical level	10	17.7	0	0	2	6.7	0	0

The analysis of anxiety and depression indicators in COPD patients reveals that a normal level of anxiety is exhibited by 51.9% of patients, a subclinical level of anxiety by 27.0%, and a clinical level of anxiety by 21.1% of such patients. A normal level of depression was revealed in 36.5% of such patients, a subclinical level in 46.2%, and a clinical level of depression was revealed in 17.3% of those patients with COPD (Tab. 3).

Tab. 3. Indicators of anxiety and depression in COPD patients according to the HADS

Levels	COPD patients				Control			
	anxiety		depression		anxiety		depression	
	abs.	%	abs.	%	abs.	%	abs.	%
Normal level	27	51.9	19	36.5	19	63.3	27	90.0
Subclinical level	14	27.0	24	46.2	9	30.0	3	32.4
Clinical level	11	21.1	9	17.3	2	6.7	0	0

The results obtained by the application of the HADS allow us to notice that in patients with IHD, asthma and COPD, clinical levels of anxiety significantly exceed this indicator in the control group ($\chi^2=7.9$, $p<0.05$). However, these levels are higher in IHD, than in asthma and COPD ($\chi^2=14.7$, $p<0.001$). According to the test, in COPD there is a tendency towards an increased clinical level of depression in comparison with IHD (>0.1), whereas this indicator shows normal and subclinical values in asthma.

CONCLUSIONS

Thus, we have established that disturbing and depressive frustrations occur more frequently in patients with chronic somatic pathologies than among healthy subjects. It is obvious that the analyzed emotional frustrations negatively affect the formation of an internal picture of the disease and, also, patients' reactions to treatment. Timely diagnostics and targeted corrections of anxiety and depression in patients with somatic pathologies will allow physicians to improve both treatment results and a patient's quality of life.

REFERENCES

1. Egede L. E., Nietert P. J., Zheng D.: *Depression and all-cause and coronary heart disease mortality among adults with and without diabetes*. Diabetes Care, 2005; 28 (6): 1339–1345.
2. Fulton R. A., Moore C. M.: *Psychological and psychiatric investigation of chronic obstructive pulmonary disease*. Eur. Respir. J., 2005; 10 (4): 715–721.
3. Greenberg C. D., Ryan J. J., Bourlier P. E.: *Psychological and neuropsychological aspects of COPD*. Psychosomatics, 1985; 26: 29–33.
4. Härter M. C., Conway K. P., Merikangas K. R.: *Associations between anxiety disorders and physical illness*. Eur. Arch. Psychiatry Clin. Neurosci., 2003; 253 (6): 313–320.
5. Hornsveld H., Garssen B., Dop M. F., van Spiegel P.: *Symptom reporting during voluntary hyperventilation*. Eur. Arch. Psychiatry Clin. Neurosci., 2003; 253 (6): 313–320.

- tilation and mental load: implications for diagnosing hyperventilation syndrome. *J. Psychosom. Res.*, 1990; 34 (6): 687–697.
6. Lichtman J.H., Bigger J.T., Blumenthal J.A., Frasure-Smith N., Kaufmann P.G., Lespérance F., Mark D.B., Sheps D.S., Taylor C.B., Froelicher E.S.: *Depression and coronary heart disease*. *Circulation*, 2008; 118: 1768–1775.
 7. Leppavuori A., Kaste M., Erkinjuntti T., Pohjasvaara T., Vataja R.: *Depression is an independent predictor of poor long-term functional outcome post-stroke*. *Eur. J. Neurol.*, 2001; 8 (4): 315–319.
 8. Maier W., Benkert O.: *Treatment of chronic depression with sulphiride: evidence of efficacy in placebo-controlled single case studies*. *Psychopharmacology*, 1994; 115 (4), 495–501.
 9. Marzari C., Maggi S., Manzato E., Destro C., Noale M., Bianchi D., Minicuci N., Farchi G., Baldere-schi M., Di Carlo A., Crepaldi G.: *Depressive symptoms and development of coronary heart disease events: the Italian longitudinal study on aging*. *J. Gerontol. A. Biol. Sci. Med. Sci.*, 2005; 60 (1): 85–92.
 10. Mizuki Y., Suetsugi M., Ushijima I.: *Differential effects of dopaminergic drugs on anxiety and arousal in healthy volunteers with high and low anxiety*. *Prog. Neuropsychopharmacol. Biol. Psychiatry*, 1997; 21 (4): 573–590.
 11. Rowan P.J., Haas D., Campbell J.A., Maclean D.R., Davidson K.W.: *Depressive symptoms have an independent, gradient risk for coronary heart disease incidence in a random, population-based sample*. *Ann. Epidemiol.* 2005; 15 (4): 316–320.
 12. Sansone R.A., Hendricks C.M., Sellbom M., Reddington A.: *Anxiety symptoms and healthcare utilization among a sample of outpatients in an internal medicine clinic*. *Int. J. Psychiatry Med.*, 2003; 33 (2): 133–139.
 13. Stocchi F., Nordera G., Jokinen R.H., Lepola U.M., Hewett K., Bryson H., Iyengar M.K.: *Efficacy and tolerability of paroxetine for the long-term treatment of generalized anxiety disorder*. *J. Clin. Psychiatry*, 2003; 64 (3): 250–258.
 14. Strömberg A.: *The crucial role of patient education in heart failure*. *Eur. J. Heart Fail.*, 2005; 7 (3): 363–369.
 15. Sundquist J., Li X., Johansson S.E., Sundquist K.: *Depression as a predictor of hospitalization due to coronary heart disease*. *Am. J. Prev. Med.*, 2005; 29 (5): 428–433.
 16. Thurston R., Kubzansky L.D., Kawachi I., Berkman L.: *Do depression and anxiety mediate the link between educational attainment and CHD?* *Psychosom. Med.*, 2006; 68 (1): 25–32.
 17. Wilhelmsen L., Rosengren A., Eriksson H., Lappas G.: *Heart failure in the general population of men: morbidity, risk factors and prognosis*. *J. Intern. Med.*, 2001; 249 (3): 253–261.
 18. Wittchen H.-U., Jacobi F.: *Size and burden of mental disorders in Europe – a critical review and appraisal of 27 studies*. *Eur. Neuropsychopharmacol.*, 2005; 15 (4): 357–376.
 19. Zhukava T.: *Psychological changes in patients with COPD*. *Pol. Ann. Med.*, 2009; 16 (1): 11–15.
 20. Zigmond A.S., Snaith R.P.: *Hospital anxiety and depression scale*. *Acta Psychiatr. Scand.*, 1983; 67 (6): 361–370.