Depression and anxiety in elderly patients as a challenge for geriatric therapeutic team

Porzych K[1], Kędziora-Kornatowska K[1], Porzych M[2], Polak A[1], Motyl J[1]

[1] Geriatric Clinic Ludwik Rydygier Collegium Medicum in Bydgoszcz of The Nicolaus Copernicus University, Poland
[2] Anaesthesiology and Intensive Care Clinic Ludwik Rydygier Collegium Medicum in Bydgoszcz of The Nicolaus Copernicus University, Poland

Abstract

Coexistence of many illnesses of various etiology in elderly patients is one of the most important issues of contemporary geriatrics. Frequent coexistence of depression and fear is one of the increasing problems in general clinical picture. Depression and fear are responsible for unclear and non-uniform clinical signs. They may modify the course of many illnesses and make diagnosis difficult.

Firstly, the aim of research was to determine the difference of anxiety level in depressed patients compared with patients not suffering from depression. Secondly, examining if there is a dependence between the anxiety level and depression exacerbation. Thirdly, researching what types of psychical and somatic signs are most often related to anxiety.

Total number of examined patients amounted to 60 persons aged 65 and older. The persons were treated in The Geriatric Clinic of Medical Academy in Bydgoszcz. The patients did not suffer from dementia and their somatic state allowed to examine them. Geriatric Depression Scale (GDS) was used in the research. Anxiety level was examined with Hamilton Anxiety Scale (HAMA). Medical history on the patients current life situations was collected. The patients were divided into two groups of 30 persons based on the GDS examination result. One of the groups gathered patients with the signs of depression in every person while the other grouped those without depression.

Examination results proved that the anxiety level in depressed patients is significantly higher than in non-depressed patients. They also showed what kinds of psychical and somatic signs are most often related to anxiety. Taking depression and fear symptoms into consideration makes the therapy proper and causes relief for the patients and makes them feel better. Interdisciplinary approach to treatment of elderly patients, covering medical and non-medical areas of life can help in limiting the number of recurring hospitalization.

Key words: depression, anxiety, coexistence, old age, therapeutic team, quality of life.

Introduction

Depression is the most common mental disorder appearing in elderly age. It has become an increasing clinical and social problem [1]. There is an increased risk of occurring depression or its relapse in the elderly age. Following episodes of disease are prolonged and the periods of remission shorten. Symptoms of depression maintain usually for few months or even longer in the elderly patients [2]. In these patients, depressive disorders that are resistant to the treatment are more common. One of the most common symptoms, accompanying depressive disorders in the elderly patients, is anxiety. Its intensity and duration may differ among different patients. The anxiety may touch many different spheres of life. In the emotional sphere, it may manifest as: sense of threatening, sense of constant tension, inability to relax, difficulties in decision making. In the cognitive sphere, anxiety usually causes deterioration of concentration, and makes that feelings dominate over rational evaluation of situation. In the behaviour, anxiety is usually manifested by hyperactivity such as: inability to rest in one position while sitting or lying, necessity of walking or bending of hands. Sometimes anxiety and its symptoms induce thoughts of serious somatic illness. The anxiety may manifest itself as headache, hypertonus, palpitation, dyspnoea,

ADDRESS FOR CORRESPONDENCE:
lek. med. Katarzyna Porzych
Geriatric Clinic
Ludwik Rydygier Collegium Medicum in Bydgoszcz
of The Nicolaus Copernicus University
M. Skłodowskiej-Curie 9, 85-094 Bydgoszcz, Poland
Tel: +48 052 585 40 21; Fax: +48 052 585 49 21
e-mail: kikgeriat@cm.umk.pl

Received 17.01.2005 Accepted 08.02.2005

sense of choking, dryness in mouth, sweatiness, pressure in urinary bladder, chronic constipation and others. One of the most frequent somatic symptoms is pain in the chest described as pressure or weight around heart, it is an anxiety called "precardiac phobia". Elderly patients with anxiety symptoms caused mainly by depression often complain of pain. Most of them suffer from many different somatic disorders, thus differentiation of pain complaints caused by anxiety or somatic disorders may be difficult. The anxiety coexisting with depression in the elderly patients causes lower self-esteem, and sometimes becomes life-threatening symptom, because it may intensify suicidal thoughts and tendencies. Suicide rate increases with age, and is highest among people between 60 and 80 years old. Elderly people do not usually take up suicidal attempt without serious intentions of killing themselves. Therefore, early diagnosis of depression and suicidal menace is essential. Screening tests are required among elderly people who came to health care service to improve diagnosing of depression [2-8].

It is very important to be able to appropriately treat an elderly patient. It is crucial to remember about the fact of multiple illnesses and high risk of functional inefficiency occurrence. According to Motta and others [9], you can not only treat the current illness but you have to take a general approach to the health problems of the elderly patients. It is also very important to protect the patients against possible dangers and threats during hospitalization and to increase the general efficiency of the patient that influences the quality of life. It is essential in geriatrics to distinguish the natural ageing symptoms from illnesses typical for the elderly (osteoporosis, falling, incontinence of sphincters and others) as well as from illnesses coexisting with elderly age (diabetes, hypertension, cardiac insufficiency) having other symptoms than with younger patients. Psychological state of patients has tremendous influence on the way the senior patients suffer. Significantly changed life conditions (family, social, economical) have also impact on the course of the illness in geriatrics. Described examples prove that therapeutic team is the basis for geriatric treatment. Various specialists cooperate on the therapeutic team. There are doctors of many specialities, nurses, psychologist, physiotherapist and a social worker. This group of specialists is an important factor protecting against the risk of an early recurring hospitalization of patients [10].

Aim of this study

The aim of this study was to determine differences in anxiety level among hospitalized patients suffering from depression compared with patients without depressive disorders. The study aims at testing whether there is a relationship between anxiety level and intensification of depression and determining which of somatic and psychiatric symptoms are most often related to anxiety.

Material and methods

The research was set in The Geriatric Clinic of Ludwik Rydygier Medical Academy in Bydgoszcz, in 2004. Patients included in this study were elderly people (65 years or more), without dementia, whose health state allowed to examine them. They were admitted to The Geriatric Clinic for holistic geriatric examination. Patients included in this study were divided into two groups, 30 persons each. The first group consisted of patients, whose Geriatric Depression Scale score indicated the presence of depression, which was confirmed by observation and anamnesis conducted according to ICD-10 criterions of diagnosing of depression. The second group was formed by patients, whose GDS score indicated lack of depressive disorders.

Full version of Geriatric Depression Scale (GDS) was used in the research consisting of 30 questions [11]. Anxiety level was measured with Hamilton Anxiety Scale (HAMA). The anxiety is measured as a psychopathological syndrome that is a complex of psychical, somatic and behavioural symptoms measured in five-degree, fourteen positional scale. Following socio-demographical variables were controlled: age, gender, marital state, children, education, health state self-esteem, place of living and income.

Table 1. **Descriptive statistics for anxiety level variable, all patients included**

HAMA	All patients (n=60)	Patients without depression (n=30)	Patients suffering from depression (n=30)
Average	18.1	9.5	26.6
Minimum	3.0	3.0	12.0
Maximum	39.0	23.0	39.0
Standard deviation	10.6	5.7	6.9

Results

Sixty patients aged 65 and over were included in this study. The average age was 75.7. The group consisted of 47 women (78.3%) and 13 men (21.7%). Patients included in the study were divided into two groups, 30 persons each. There were 22 women and 8 men at the age between 65 and 93 in the first group. These patients had no symptoms of depression according to Geriatric Depression Scale score. In the second group there were 25 women and 5 men in the age between 65 and 86 years. These people's Geriatric Depression Scale score indicated presence of depressive disorders. Both groups had similar age, marital state, educational level and life conditions indicators. The group included in this study was representative according to marital state, educational level, and income for the population of elderly people. The anxiety level in the HAMA scale in the whole investigated group was 18.1. Among patients without depressive disorders, it was 9.5 and among patients with depression 26.6. Descriptive statistics of variables: anxiety level, depression level are listed in *Tab. 1-3*.

Cognitive functions in both groups were similar. Average score in MMSE among patients without depressive disorders was 28.8, and 28.0 in the second group.

Statistical analysis proved that differences in anxiety level

Table 2. **Distribution of HAMA scale scores for patients included in the study**

HAMA score, anxiety level	Patients without depression		Patients suffering from depression	
	Patients	Percent	Patients	Percent
Below 17 (no symptoms or mild)	25	83.33	2	6.67
18-24 (mild to moderate)	5	16.67	12	40.00
25-30 (moderate to heavy)	0	0.00	9	30.00
Over 30 (heavy to very heavy)	0	0.00	7	23.33

Table 3. **Descriptive statistics for depression level variable, all patients included**

GDS (depression level)	All patients (N=60)	Patients without depression (N=30)	Patients suffering from depression (N=30)
Average	10.2	4.8	15.6
Minimum	0.0	0.0	11.0
Maximum	25.0	10.0	25.0
Standard deviation	6.5	3.0	4.2

Table 4. **Correlations between depression level, particular symptoms measured with Hamilton Anxiety Scale and anxiety level**

Correlations
Statistically relevan level p<0.05000
N=60

	1 Anxious mood	2 Tension	3 Fears	4 Insomnia	5 Intelectual	6 Depressive mood	7 Somatic complaints – muscular	8 Somatic complaints – sensory	9 Cardiovascular symptoms	10 Respiratory symptoms	11 Gastrointestinal symptoms	12 Genitourinary symptoms	13 Autonomic symptoms	14 Behaviour at interview	Anxiety level	Depression level
depression level	0.72*	0.64*	0.44*	0.55*	0.53*	0.70*	0.29*	0.24	0.53*	0.37*	0.48*	0.40*	0.52*	0.53*	0.81*	1.00

between both groups are highly relevant as computed using Mann's and Whitney's U test (Z=-6.28; p<0.0000001). The study confirmed hypothesis stating that there is a correlation between anxiety and depression level among elderly patients. Pearson's r correlation factors indicate that depression level correlates with almost all symptoms measured with Hamilton's Anxiety Scale. The higher depression level, the higher anxiety level (r=0.81; p<0.05) – *Tab. 4*.

According to the averages obtained from analysis of particular questions of HAMA questionnaire, we found that the most common anxiety symptoms among patients suffering from depressive disorders were: vegetative symptoms such as dryness in mouth, increased sweatiness, skin redness or paleness; insomnia (difficulties in falling asleep, intermitted sleep or bad dreams); tension (dreading, crying, and palpitations); gastric symptoms (difficulties in swallowing, nausea, vomiting, constipation, weight loss); cardiovascular symptoms (palpitations, pain in the chest, notion of fainting).

Discussion

Anxiety is quite a common symptom that accompanies depressive disorders among elderly patients [7]. According to publications, anxiety accompanies depressive disorders in elderly patients 15-20 times more often [6]. This study indicated that compared groups (patients suffering from depressive disorders vs patients without symptoms of depression) relatively differed statistically, concerning anxiety level measured with Hamilton's Anxiety Scale. Among patients without depressive disorders Hamilton's Anxiety Scale average was 9.5 (from 3 to 23 points) compared with the second group (patients suffering from depression) it was 26.6 (from 12 to 39). Analysis of those averages proved that among patients without depressive disorders, there is lack of anxiety symptoms, or they are mild. Among patients with depression, anxiety symptoms are moderate or heavy. Among patients who had no symptoms of depression, none had heavy or very heavy anxiety symptoms, in the second group such signs were found in 7 patients. According to literature, general state of patients who have depression coexisting with anxiety disorders is worse when compared with patients who have depression without anxiety disorders. Coexistence of depressive and anxiety symptoms has great influence on debilitate level, social function and behaviour oriented for search for help [13]. This study over population of geriatric patients confirmed possibility of existence of many different disease symptoms, which often had no reason in patients physical state. The most common anxiety signs found among patients suffering from depression were: vegetative symptoms, insomnia, tension, gastrointestinal and cardiovascular symptoms. These examples

verify hypothesis stating that, psychological and somatic anxiety symptoms coexist with depression and may dominate in clinical features of such disorders. Anxiety may be the reason of physical symptoms that may be misdiagnosed as a somatic disease. Both, acute and chronic anxiety disorganize human complex activity, sometimes may be responsible for exclusion out of social life. Heavy between anxiety disorders and depression seems to be less evident, when we consider the latest studies anxiety may cause exhaustion or even desiccation [6,14].

Our study proved, that there is a direct relationship between intensification of depression and anxiety level among hospitalized elderly patients: the higher depression level, the higher anxiety level. Depression level correlated positively with particular anxiety symptoms: psychiatric, somatic and behavioural included in Hamilton's Anxiety Scale. This conclusion confirms that clear separation between depression and anxiety symptoms may be sometimes difficult. Clear demarcation between anxiety disorders and depression seems to be less evident, when we consider the latest studies of distribution of this kind of disorders in population. According to epidemiological data, depression and anxiety coexists much more often than it was expected [15]. Clinical practice also proves that both disorders infiltrate, however, in individual cases they are significantly different diagnostic categories. Some authors use the term depressive-anxiety syndrome to describe coexistence of anxiety and depressive disorders in elderly patients, this category has its equivalent in the ICD-10 classification (mixed depressive and anxiety disorders). Using this category is justified when both depression and anxiety symptoms are present, but none of them is intensive enough to diagnose it individually. Variable tendencies of dominating symptoms are characteristic for that kind of disorders [16-18]. Differential diagnosis is difficult among elderly patients, because clinical signs are not specific. Signs of depression and anxiety may manifest as "somatic mask" (complaints are not specific) or may be prefaced by somatic disorders [6]. Depression and anxiety when not diagnosed, cause a lot of serious health damages which are often iatrogenic. When mistreated, depression and anxiety may cause insomnia, pain syndromes, pain killers and hypnotic drug addiction as well as increase of suicide ratio. Moreover, wrong diagnosis causes irrelevant tests and costs of medication.

To improve diagnosing of depression and anxiety interdisciplinary approach for diagnosing and treatment of elderly patients is needed. Knowledge of clinical features of depression signs and cooperation with people who have experience in psychiatry of elderly patients is also required. Correct diagnosis of these disorders precises epicrisis and simplifies taking up the best treatment [19,20].

Conclusions

1. Difference in anxiety level between patients with depression and patients who have no signs of such disorders is statistically relevant. Group of depressed patients had higher anxiety level when compared with the group of patients without depressive disorders.

2. Among patients included in this study, the most common anxiety signs were: vegetative symptoms, insomnia, tension, gastrointestinal and cardiovascular symptoms.

3. There is rectilinear relationship between depression and anxiety level in elderly patients. The higher depression level, the higher anxiety intensification.

References

1. Szatur-Jaworska B. Starzenie się ludności Polski – wyzwania dla polityki społecznej. Gerontologia Polska, 2002; 10: 199-206.
2. Dudek D, Zięba A. Depresja. Wiedzieć aby pomóc. Kraków, Wydawnictwo Medyczne; 2002.
3. Altamura AC. Anxious-depressive syndromes in the elderly: assessment, clinical course, and treatment. [In:] Racagini G, Smeraldi E, ed. Anxsious depression. Assessment and treatment. New York, Raven Press; 1987.
4. Wright AF. Depresja w praktyce lekarza rodzinnego. Warszawa, Wydawnictwo Medyczne Sanmedica; 1995.
5. Baldwin R. Late life depression, undertreated? British Medical Journal, 1988; 296: 519.
6. Lovestone S, Howard H. Depresja u osób w podeszłym wieku. Gdańsk, Via Medica; 1999.
7. Koszewska I, Habrat E. Depresja jest przemijająca. Poradnik dla chorych i ich rodzin. Warszawa, Instytut Psychiatrii i Neurologii; 2000.
8. Malhi GS, Bridges KB. Postępowanie w depresji. Wrocław, Wydawnictwo Medyczne Urban & Partner; 2001.
9. Motta L et al. About the indispensability of the geriatric department. Geriatria, 2002; 14 (Suppl. 1): 38-47.
10. Kocemba J, Życzkowska J. Optymalny model leczenia szpitalnego pacjentów w wieku podeszłym. Terapia, 2002; 12: 3-6.
11. Yesavage JA, Brink TL, Rose TL, Lum O. Development and validation of a geriatric depression screening scale: a preliminary report. Journal of Psychiatric Research, 1983; 17: 37-49.
12. Bech P. The Bech, Hamilton and Zung Scales for mood disorders: screening and listening. A twenty years update with reference to DSM-IV and ICD-10. Berlin, Heidelberg: Springer-Verlag; 1996.
13. Lépine JP. Współwystępowanie depresji i lęku. Dyskusje o depresji, 1998; 2: 1-5.
14. Pużyński S. Depresje. Warszawa, PZWL; 1988.
15. Krzyżowski J. Depresja. Warszawa, Medyk; 2002.
16. Gottfries CG, Karlson I. Depression in later life. Oxford, OCC Ltd; 1997.
17. Araszkiewicz A. Zaburzenia lękowe – rozpowszechnienie, klasyfikacja, diagnostyka. Nowa Klinika, 2002; 7-8: 793-800.
18. Parnowski T. Zespoły depresyjne w wieku podeszłym – rozpoznawanie i postępowanie terapeutyczne. Nowa Klinika, 2000; 8: 845-9.
19. Pużyński S. Depresje i zaburzenia afektywne. Warszawa, Wydawnictwo Lekarskie PZWL; 1996.
20. Bień B. Opieka zdrowotna i pomoc w chorobie. [W:] Polska starość. Synak B, red. Gdańsk, Wydawnictwo Uniwersytetu Gdańskiego; 2003.