CHRONIC PAIN AND DEPRESSION – ARBITRARINESS OR CONSECUTION OF THE PATIENT’S DIAGNOSTIC AND TREATMENT ROUTE

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ABSTRACT:

Unrecognized depression among patients with chronic pain is a common medical problem, highlighting the need for targeted search and identification of depression-related symptoms.

Purpose: The aim of the present study is to investigate the trends in the diagnostic and treatment pathway of comorbid patients with depression and chronic pain.

Materials and Methods: 110 psychiatrists and 119 neurologists were interviewed through an anonymous, randomized survey in Bulgaria.

Results: Referrals of the patients with chronic pain to neurologists and psychiatrists are not routine practice. The general practitioners are the main group, referring the patients with chronic pain to a consultation with a neurologist (89.10%) and a psychiatrist (68.20%). The patients themselves seek help more often from a neurologist (77.20%) than from a psychiatrist (44.50%). The most common reason for neurologists to consult their patients with a psychiatrist is suicidal ideation and intentions (50.42%) and the least common – insomnia (15.96%). According to psychiatrists, chronic pain patients seek help from them for other symptoms like somatic – vegetative ones (97.8%), anxiety (78.20%), insomnia (55.50%) and depressed mood (54.50%). More than 1/4 (29%) of them have had suicidal thoughts and intentions, which suggests a long history of depressive symptoms.

Conclusions: The diagnostic and treatment processes of patients with chronic pain and depression are performed randomly rather than following a certain logical sequence. The creation of an algorithm for general practitioners and pain specialists aimed at early detection of symptoms of depression and related predictors of suicidal behavior is needed.

Keywords: chronic pain, depression, comorbidity, diagnostic and treatment pathway,

INTRODUCTION:

Chronic pain is one of the leading health problems worldwide. It is a widespread disabling condition with a profound impact on various areas of people’s lives, deteriorating their social and professional functioning and quality of life [1].

Globally, lower back pain, migraine and major depressive disorder are among the top five causes of years left with disability [sic] in 2016 [2]. Chronic pain of moderate to severe intensity affects 19% of the adult population in Europe. A study found that a very small number of patients with chronic pain were consulted with and treated by pain specialists, and almost half of them did not receive an effective pain treatment [3].

Many factors are related to the manifestation and maintenance of chronic pain, divided into three main groups – biological, psychological and socio-demographic. The assessment of these factors is at the core of the individualized multidisciplinary approaches of pain management and strategies for the prevention of chronic pain-related diseases [4]. Generally, the management of chronic diseases encompasses a set of successive interventions aimed at the prevention and management of one or more chronic diseases through the application of a systematic and multidisciplinary approach, containing many potentially effective treatment methods. One of the main goals in the processes of chronic disease management is the identification of the patients at risk [5]. The most effective and economically justified approach to the management and treatment of chronic pain is the multidisciplinary one [4].

Chronic pain cannot be managed separately. One of the main reasons requiring the application of a multidisciplinary approach in pain management and an effective collaboration between different specialists is the frequently accompanying comorbidity. About 1/4 (26%) of the patients with chronic pain suffer from other somatic and mental disorders [6]. Back pain, as a leading cause of disability, is often combined with cardiovascular and metabolic diseases [7]. A study including patients with depression consulted in psychiatric outpatient practices found that 59.1% of them have reported a pain complaint [8]. Clinically unrecognized depression in patients with chronic pain is a prevalent medical problem. A survey among patients with chronic pain without a history of mental disorder revealed symptoms of depression among 35.1% of the studied patients. The data underscore the need for targeted search and active identification

cation of depression-related symptoms [9]. In this regard, the assessment of psychological factors as depression, anxiety, self-efficacy and catastrophizing is part of the overall multidisciplinary assessment of the patients with chronic pain [10]. Another important component is the assessment of suicide risk among patients with chronic pain. Regardless of the type, chronic pain is a potential risk factor for suicidal behavior. Depression, past suicide attempts and family burden, experiences of helplessness and anger are factors associated with suicide risk [11]. Their early detection and targeted psychotherapeutic interventions are essential for the reduction of the risk [12]. Therefore, the detection of depressive symptoms and predictors of suicidal ideation by pain specialists and the close collaboration of psychiatrists and psychologists are crucial for the successful management of chronic pain.

The widespread prevalence of chronic pain and its frequent combination with depression provoked us to conduct a study aimed at examining trends in the diagnostic and treatment pathway of comorbid patients with chronic pain and depression. In this regard, we investigated to what extent and how patients with chronic pain and depression receive adequate consultation and timely treatment by neurologists and psychiatrists working in hospitals and outpatient practices in Bulgaria.

MATERIALS AND METHODS:

A randomized anonymous study was conducted by interviewing 110 psychiatrists and 119 neurologists from Sofia, Plovdiv, Varna, Pleven, Stara Zagora, Dobrich, Shumen and Sliven. The survey was conducted in the period from

July to December 2019.

Two questionnaires were developed – one for neurologists and one for psychiatrists. The development was performed following the principle of comparability of the data. The questionnaires differ on only one question.

The questionnaires surveying the opinion of the neurologists and psychiatrists included five questions, and some of them suggested multiple choice options.

The two groups of specialists were given questionnaires with questions about the date of completing the questionnaire, city and work placement (inpatient or outpatient practice), how many patients with chronic pain they consulted in the last month, whether they refer patients with chronic pain to a consultation with a neurologist or psychiatrist, respectively, the symptoms because of which neurologists refer patients with chronic pain to a consultation with a psychiatrist and the reasons for which psychiatrists consult patients with chronic pain. The difference between the two questionnaires consisted in one question: for neurologists – the number of chronic pain patients they referred to a consultation with a psychiatrist in the past month, and for psychiatrists – about the preferred therapeutic approaches for treating patients with chronic pain and depression.

RESULTS:

The work on the implementation of the purpose of the study provokes the consideration of the issue in several main directions:

Firstly, the distribution by practice of the neurologists and psychiatrists consulting patients with chronic pain and their ratio is studied. (fig.1)

Fig. 1. Workplace of the neurologists and psychiatrists participating in the study.

The percentage distributions showed significant differences between psychiatrists and neurologists working in a hospital and in an outpatient practice. The largest percentage of the neurologists – 50.4% worked only in outpatient practice, while those working only in a hospital were only 5.90%. 43.70% of the interviewed neurologists worked in an inpatient and outpatient setting. Among psychiatrists working in inpatient or outpatient settings, there was no significant difference in the percentage ratios – 29.10%

worked in inpatient and 28.20%, respectively, in an outpatient setting. The largest group of the psychiatrists included in the study combine worked in a psychiatric hospital and outpatient practice – 42.70%, which is comparable with the neurologists with identical job choices – 43.70%. (fig.1)

Secondly, we examined the number of patients with chronic pain consulted by the psychiatrists and neurologists who participated in the study for the past month. (table 1)

Table 1. Number of the patients with chronic pain consulted by the surveyed neurologists and psychiatrists for the past month.

Consulted chronic pain patients by:	N	Mean	Min	Max
Psychiatrists	1070	10	0	100
Neurologists	6176	52	2	300

The surveyed psychiatrists have consulted 1070 patients with chronic pain at an average of 10 patients and a maximum of 100 patients for the past month. The surveyed neurologists have consulted 6176 patients with chronic pain at an average of 52 patients for the past month, with a maximum of 300. Significant differences between the mean and maximum numbers of patients with chronic pain consulted

during the past month by neurologists and psychiatrists have been found. (table1)

Thirdly, we examined what kinds of specialists have referred patients with chronic pain to an examination by a neurologist or by a psychiatrist, respectively or if the patients seek help themselves. (fig. 2.)

Fig. 2. Patients referred to a consultation with a neurologist.

89.10% of the chronic pain patients who have needed consultation and treatment by a neurologist have been referred by the general practitioners (GPs), compared to 46.20% – by other specialists for the past month. It turns out that for the past period, a very high number of patients (77.20%) have sought help from a neurologist themselves. (fig. 2)

Fig. 3. Patients referred to a consultation with a psychiatrist.

For the past month, the GPs have referred the highest percentage of patients (68.20%) to a consultation with a psychiatrist, while 44.50% of the patients have sought help from a psychiatrist themselves. Orthopedists and other specialists have referred respectively 3.6% and 21.80% of

patients to a psychiatrist. (fig. 3)

Fourthly, the number of patients with chronic pain referred by neurologists to a psychiatrist for the past month was studied. (table 2)

Table 2. Number of patients with chronic pain referred by neurologists for consultation with a psychiatrist for the past month.

	N	Mean	SD	Min	Max
Patients	442	3,8	6,0	0	30

The 119 neurologists surveyed have referred a total of 442 patients with chronic pain to a consultation with a psychiatrist for the past month. The average number of referred patients was 3.8, at a standard deviation of 6.0

(table 2).

In the fifth place, the leading symptoms, for which neurologists referred patients with chronic pain to consultation with a psychiatrist, were studied. (fig. 4.)

Fig. 4. Leading symptoms for which patients with chronic pain were referred by neurologists to a consultation with a psychiatrist for the past month.

Most of the patients with chronic pain have been referred to a consultation with a psychiatrist because of pronounced suicidal ideation and intentions (50.42%), followed by experiences of helplessness and despair (43.30%), chronic pain with no organic cause or not fully explained by physical examinations and objective tests (42.86%) and symptoms of anxiety (42.01%). Other common reasons were the loss of interest and the loss of the

ability to experience joy and pleasure (39.5%), followed by depressed mood (32.70%). Patients have been referred much less often because of insomnia (15.96%), fatigue and decreased activity (12.60%) and for other reasons (6.72%). (fig.4.)

Afterwards, we examined the reasons (symptoms) for which psychiatrists consulted patients with chronic pain. (fig. 5.)

Fig. 5. Reasons why patients with chronic pain have consulted with a psychiatrist.

The highest percentage of patients with chronic pain have sought help because of other symptoms, like somatic – vegetative ones – 97.8%. The next most common cause was anxiety (78.20%). A similar number of patients have had a psychiatric consultation due to insomnia (55.50%) and depressed mood (54.50%), followed by 43.10% due to fatigue and decreased activity, 34.50% due to experiences of helplessness and despair and 29.30% due to the loss of interest and the loss of the ability to experience joy and pleasure.

29% of the patients were consulted for suicidal ideation and intentions. The smallest numbers of patients – 12.70% have visited a psychiatrist in relation to chronic pain symptoms, for which there was no organic cause or could not be fully explained with physical examinations and objective tests. (fig. 7.).

Finally, we investigated the preferred treatment approaches in patients with chronic pain and anxiety-depressive symptoms used by psychiatrists. (fig. 6.)

Fig. 6. Preferred treatment approaches in patients with chronic pain and concomitant anxiety-depressive symptoms.

The data showed that the most preferred therapeutic approach in the treatment of patients with chronic pain and concomitant symptoms of depression and/or anxiety was the pharmacotherapeutic one. It was indicated as the preferred approach by 57.30% of the surveyed psychiatrists. 41.80% of specialists used the combination of pharmacotherapy and psychotherapy, and a small part of them (0.90%) used psychotherapy only. (fig.6.)

DISCUSSION:

Chronic pain is a common health problem, subject to diagnosis and treatment by specialists working in hospitals and outpatient practices. The results of the survey showed that almost half of the surveyed neurologists and psychiatrists prefer to practice in an inpatient and outpatient setting. The largest number of the surveyed neurologists practiced only in outpatient clinics and an insignificant number of them – only in a hospital. There was no significant percentage difference between the working preferences of the surveyed psychiatrists (fig.1.). It is assumed that the combination of inpatient and outpatient practice would result in specialists encountering a higher number of comorbid patients with chronic pain and depression. With regard to the number of consulted patients with chronic pain by neurologists and psychiatrists for the past month, significant differences between the average and maximum values were revealed, which are most likely due to differences in the characteristics of the activity (table1). The number of referred patients with chronic pain varies. Some neurologists consult much more patients with chronic pain than others, probably due to specialization in that clinical area.

The higher percentage of patients consulted by neurologists could also be explained by the exacerbation of pain in the autumn-winter period, as the study covers the months of October, November and December. This hypothesis is confirmed by specific studies related to such assumptions [13,14]. In addition, GPs had an uneven number of referrals for consultation with various specialists for the needs of the diagnostic and treatment path of their patients in different months.

The results of the study reveal that GPs are the major group of specialists referring patients with chronic pain to consultation with neurologists (89.10%) (fig.2.). Fewer patients were referred to a psychiatrist (68.20%) (fig.3). The

manifestation of pain as a symptom requires a search for the reasons(diagnosis) that caused it, as well as the application of appropriate therapeutic interventions to reduce the pain intensity. Therefore, the diagnostic path and subsequent treatment of pain begin with the consultation with a neurologist, rheumatologist, orthopedist, cardiologist and other specialists, depending on the location and characteristics of the pain. The psychiatrist appears at a later stage, usually in case of suspicion of comorbidity of chronic pain with mental disorders and in case of the absence of an organic cause that can fully explain the pain symptoms.

The phenomenological approaches consider the objective (sensory) symptoms of pain as visible and obvious, directing the attention of the specialists to perform various therapeutic interventions. While the subjective experiences associated with the suffering during pain often remain invisible and unrecognized by the clinicians. The experiences of pain are an object of research by psychiatrists, but they also need to be recognized by pain specialists.

A significant percentage of patients (77.20%) sought help from neurologists by themselves (fig.2.), while those who sought help from psychiatrists were 44.50% of the patients (fig.3.). The existing stigma in society about psychiatric consultations could probably be the reason why patients prefer to be examined by a neurologist rather than a psychiatrist, even if they have mental symptoms. Such assumptions are expressed in the analysis of V. Švab [15].

The 119 neurologists surveyed have examined a total of 6176 patients with chronic pain (table 1.) and have referred only 442 of them (table 2.) to a consultation with a psychiatrist for the past month. The average number of referred patients was 3.8 at a standard deviation of 6.0 (table 2). It is assumed that patients are referred at random principle only when symptoms of psychiatric comorbidity are registered.

The largest number of patients with chronic pain have been referred to psychiatric consultation by neurologist due to pronounced suicidal ideation and intentions (50.42%) and experiences of helplessness and despair (43.30%) (fig.4.). The evidence suggests that chronic pain is a potential risk factor for suicidal behavior. The experiences of helplessness are its predictors. The suicidal behavior is an indicator of greater severity of the depressive episode and is preceded by symptoms such as depressed mood, loss of in-

terest and loss of the ability to experience joy and pleasure. The results of the study showed that these symptoms make up a smaller share of the reasons for psychiatric consultation, 32.70% and 39.5%, respectively. The symptoms of depression and the predictors of suicidal behavior, requiring urgent psychiatric intervention, need to be actively looked for. Chronic pain, for which there is no organic cause or cannot be fully explained through physical examinations and objective examinations (42.86%), and symptoms of anxiety (42.01%) are also common reasons to consult a psychiatrist. It turns out that only 15.96% of patients have been consulted due to insomnia (fig.4.). Studies revealed insomnia to be a common symptom accompanying the clinical picture of chronic pain, which necessitates for insomnia to not be studied in isolation because underlying depressive symptoms must be looked for [16]. It should be noted that insomnia doubles the risk of developing symptoms of depression. The early treatment of insomnia could reduce that risk.

The surveyed psychiatrists shared different reasons that provoke chronic pain patients to seek help from them. The highest percentage of patients shared other symptoms outside of the depressive syndrome or somatization of pain (97.8%). The next most common cause was anxiety (78.20%). Studies in support of these data prove that anxiety symptoms associated with depressive disorders are common among patients with chronic somatic disorders [17]. Nearly half of the consulted patients shared complaints of insomnia and depressed mood – 55.50% and 54.50%, respectively. These symptoms often accompany the clinical picture of chronic pain. Other symptoms associated with depression that have led to an active search for psychiatric help were fatigue and decreased activity (43.10%) and feelings of helplessness and despair at 34.50%. Approximately the same percentage of patients shared complaints of loss of interest and loss of the ability to experience joy and pleasure (29.30%) as well as suicidal thoughts and intentions (29%). Therefore, more than ¼ of those who have sought help from a psychiatrist have had a high suicide risk, which suggests a long history of depressive symptoms and its untimely recognition. The psychiatrists reported a smaller number of consulted patients suffering from chronic pain, for which there was no organic cause or could not be fully explained through physical examinations and objective tests (12.70%) (fig.5.).

Concerning the treatment of patients with chronic pain and anxiety-depressive symptoms, slightly more than

half of the studied psychiatrists preferred to use only medical treatment (57.30%). Less than 1% of psychiatrists used only psychotherapy. Less than half of them (41.80%) preferred the combination of drug and psychotherapeutic approaches (fig.6.).

Based on the results of the study, several conclusions can be deduced:

1. At the time of the study, it was difficult to find systematic care for patients with chronic pain.
2. A relatively small number of patients with chronic pain are consulted with a psychiatrist, despite the high comorbidity with depression.
3. An alarming part of the chronic pain patients seeking help from a neurologist or a psychiatrist were already at risk of suicide, which shows probably a longer duration of the undiscovered depressive symptoms and greater severity of the depressive episode.
4. The active search for depressive symptoms by specialists is still not a priority in the comprehensive examination of patients with chronic pain.

CONCLUSION:

The diagnostic and treatment process concerning the comorbid patients with chronic pain and depression is performed on a random basis rather than following a certain logical sequence. Three interrelated factors are required for the achievement of efficiency in the diagnostic and treatment processes – time, human resources and methodology [18]. The organization of time depends on the good preparation and application of a methodology with high reliability that could be applied quickly and easily on the respective health problem. In this regard, training programs aimed at actively searching for depressive symptoms have to be initiated among the GPs and the pain specialists. Another emerging need is the introduction of a fast and reliable method for detecting not only symptoms of depression but predictors of depression and suicidal behavior as well. Good collaboration between specialists is another important factor for the successful diagnosis and treatment of patients with chronic pain and depression. Therefore, the establishment of trained multidisciplinary teams with a high degree of cooperation between the specialists is of paramount importance to the complex and individualized assessment of patients with chronic pain, the timely recognition of symptoms of depression and the application of effective therapeutic approaches.

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