

ANALYSIS OF PSYCHIATRIC HEREDITY IN PATIENTS WITH AGORAPHOBIA AND PANIC DISORDER

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Summary

Introduction: The previous studies report high prevalence of psychiatric disorders among family members of patients with agoraphobia and panic disorder. In our country there have been no studies that examine psychiatric heredity in patients with agoraphobia and panic disorder.

Objective: The objective of the research is to investigate the presence of heredity in patients with agoraphobia and panic disorder, and to compare the clinical and demographic characteristics of patients with agoraphobia and panic disorder with and without psychiatric heredity.

Method: The sample included 40 patients with panic disorder and agoraphobia. Data were obtained from the questionnaire for the assessment of panic disorder *NIMH-PQ*, which included questions about the occurrence of psychiatric disorders in families of the patients, as well as 44 questions about the severity and frequency of panic disorder symptoms.

Results: The results indicate that the majority of patients (62.5 %) have the positive psychiatric heredity. The most frequent were depression and alcoholism. The results, also, showed that there are no significant differences in the characteristics of the main symptoms of panic disorder of patients with and without psychiatric heredity.

Conclusion: The results of the study indicate high prevalence of psychiatric heredity in patients with panic disorder and agoraphobia but more studies are needed to conclude that there is a direct link between family history of psychiatric disorders and occurrence of panic disorder and agoraphobia.

Key words: panic disorder, agoraphobia, depression, alcoholism, heredity

INTRODUCTION

Panic disorder is a syndrome characterized by frequent, unexpected panic attacks, intense concern about panic attacks and their potential consequences. The prevalence of panic disorder in the world is 3 – 4 % [1]. It is believed that in the development of a panic disorder numerous factors are include, so we can say that the etiology is multifactorial. Agoraphobia is a fear of public places, open spaces, and the fear of leaving the house alone. The prevalence of agoraphobia is 3 % - 8 %, it is more common in women. Agoraphobia and panic disorder are most often encountered as a single entity and so that they are recognized in the International Classification of Diseases under the code number for diagnosis F40.01 [2].

Clinical studies have proven that in the etiology of panic disorder traumatic events in childhood, congenital factors, family attitudes, and family history of psychiatric illness all have a role, among other things. Results of a survey that dealt with predisposing factors in the onset of panic disorder indicate that the majority of patients with panic disorder have experienced some of the examined predisposing events for a period of one year prior to the first panic attack, most commonly a case of death was stated [3]. In a study conducted by Bandelov and associates, patients with panic disorder reported significantly greater presence of psychiatric disorders in the family, especially panic disorder and generalized anxiety disorder, as compared to the control group [4]. Epidemiological studies confirmed that the occurrence of certain psychiatric diseases has a partial genetic influence. French scientists have shown

that people with a family history of panic disorder are more likely to suffer from the same [5]. Panic disorder, general anxiety, phobias and obsessive-compulsive disorder have a family tendency [6]. Other studies have shown that the risk of panic disorder in the families of the patients with panic disorder is higher in first-degree relatives, while with the second degree relatives the risk decreases [7]. These findings imposed a question, whether other psychiatric illnesses in the family history may influence the occurrence of panic disorder.

According to our information, no studies that would address the psychiatric heredity and panic disorder and agoraphobia were conducted in Serbia. Such a study could indicate some etiological factors that influence the occurrence of panic disorder.

Objectives and research hypotheses

The first objective of the research is to investigate the existence of psychiatric heredity (depression, alcoholism, psychosis, schizophrenia, obsessive-compulsive disorder, panic disorder, agoraphobia, and other forms of phobias) in patients with panic disorder and agoraphobia.

Another aim of the research was to compare the clinical and demographic characteristics of patients with panic disorder and agoraphobia with psychiatric heredity (depression, alcoholism, obsessive-compulsive disorder, psychosis, schizophrenia, panic attacks) and without psychiatric heredity.

The first hypothesis is that there is a high prevalence of psychiatric heredity in the families of the patients with panic disorder and agoraphobia.

Another hypothesis is that the patients with psychiatric heredity have more severe and earlier onset disorders than patients without psychiatric heredity.

MATERIALS AND METHODS

The survey was conducted at the Day Hospital of the Clinic for Psychiatry, Clinical Centre of Serbia in Belgrade. The study comprised 40 patients with panic disorder and agoraphobia as an underlying disorder.

Examination of patients with psychiatric illnesses in their families is done through the use of the National Institute of Mental Health Panic Questionnaire (NIMH PQ), which serves as a clinical and research method for testing the clinical characteristics of patients with panic disorder or those in whom there is a suspicion of panic disorder [8]. Patients independently answer questions about the characteristics of panic disorder and psychiatric disorders that appear in their family.

The questionnaire consisted of 9 psychiatric disorders: depression, psychosis, schizophrenia, panic disorder, a severe form of fear, agoraphobia, and other types of phobias, obsessive-compulsive disorder and alcoholism. The tenth question is about the existence of other psychiatric illnesses that are not listed. Patients were asked to circle whether the disease occurred among: mother, father, sister, brother, child, grandfather/grandmother, aunt, uncle, cousin or other relative.

The questionnaire includes questions about the characteristics of the symptoms, the patients provided data on the intensity and frequency of individual

symptoms that occur during a panic attack according to the Likert scale (ranging from 0 to 3). The questionnaire included 44 questions such as: palpitations, irregular heartbeat, numbness of the mouth, numbness in the hands or feet, chest pain, and more. In addition, patients had the task to evaluate the current state of health, ranging from 1 to 5, and to state the age at the time of the first occurrence of a panic attack.

In the statistical analysis of materials standard descriptive and analytical statistical methods were used. Data are presented through the mean value of the standard deviation and relative frequencies. A statistical analysis was performed using Student's t test.

RESULTS

Demographics

Respondents had an average age of 32.33 ± 8.23 years, ranging from 20 - 51 years. Among them 15 (37.5 %) were men and 25 (62.5 %) were women. Of the 40 patients that participated in the study 19 (47.5 %) were married. Asked whether closely tied to a parent 27 (67.5 %) of the respondents gave a positive answer. Of these 22 are closely tied to the mother and 5 to the father. The average grade of the health condition of the patients was 3.87 ± 1.02 in the range of 1 to 5.

Psychiatric heredity

In a sample of 25 subjects (62.5 %) stated that at least one of the primary members of the family had a psychiatric disorder. Table 1 shows the distribution of the frequency of psychiatric disorders

that have appeared in heredity. Among the family members depression and alcoholism usually emerged. This is followed by a severe form of fear and much less frequently psychosis, some form of phobia and obsessive-compulsive disorder. Although the research concerns panic disorder and agoraphobia, it is interesting that panic disorder in heredity was mentioned by 5 patients and agoraphobia only by 4 respondents. Not one respondent stated schizophrenia in heredity. Two patients have stated that in their families existed other psychiatric disorders, however they did not name them (in Table 1).

If we look at the group of subjects with psychiatric heredity we can get to the conclusion whether the patients had

one, two or more persons in heredity. The results we obtained showed that there were 11 (27.5 %) patients with a heredity disease. Seven of them (17.5 %) said that family members had 2 members with a psychiatric disorder, three (7.5 %) that their family had 3 members, a total of 4, 5 or 6 members per family, were stated by only four (10 %) patients.

Most commonly a family member that was listed as the person who had a psychiatric disorder was the mother (42.5 %), followed by father (30 %), grandfather/grandmother (27.5 %), aunt (20 %), uncle (father's brother) (15 %), cousin (7.5%), sister (10%), brother (2.5%), uncle (mother's brother) (2.5%).

Table 1: The existence of heredity sample
Tabela 1: Prikaz postojanja herediteta uzorka

Psihijatrijski poremećaj Psychiatric disorder	N	(%)
Depresija Depression	13	32,5 %
Alkoholizam Alcoholism	12	30 %
Težak oblik straha Severe form of fear	8	20 %
Panični napadi Panic attack	5	12,5 %
Psihoze Psychosis	4	10 %
Agorafobija Agoraphobia	4	10 %
Fobija od drugih stvari, bića, situacija Other phobia	4	10 %
Opsesivno-kompulzivni poremećaj Obsessive-compulsive disorder	2	5 %
Neki drugi mentalni poremećaj Some other mental disorder	2	5 %
Shizofrenija Schizophrenia	0	0

Comparison of patients with psychiatric heredity and without psychiatric heredity

The comparison between the group of patients with psychiatric heredity and the group of patients without psychiatric heredity in relation to age, evaluating the health status and age at the time of the first occurrence of panic attack are shown in Table 2. The results show that there are no significant differences in the assessment of the health status between the group of patients with psychiatric heredity and the group of patients without heredity. Significant differences do not exist in the age of the patients at the time of the first occurrence of panic attack between the two groups of patients. It should be underlined that two patients from the group of patients with psychiatric heredity did not specify how old they were at the time of the first panic attack.

The investigation showed that significant differences in the characteristics of the symptoms between the patients with psychiatric heredity and the patients without heredity, were only present in a few symptoms of a total of 44 symptoms of panic attacks, that were tested through the questionnaire. The frequency of palpitations in patients with heredity was 2.67 ± 0.49 , whereas in patients without heredity 2.20 ± 0.93 ($t = 2.10$, $p = 0.04$). In addition, the difference between the symptoms was observed in the intensity of the feeling of floating, patients with heredity 0.07 ± 0.26 , and patients without heredity sensed an increased feeling 0.60 ± 1.08 ($t = -2.36$, $p = 0.02$). The intensity of feeling that things are unreal in the patient group with psychiatric hereditary was 0.00

(patients had such symptoms during the attack), whereas in patients without hereditary the intensity was 0.32 ± 0.69 ($t = -2.32$, $p = 0.03$). Another symptom that the patients with psychiatric hereditary had during the attack is that the things appeared brighter or darker to them, where the difference between the two groups was observed also in intensity. Intensity among the patients without heredity was 0.36 ± 0.70 ($t = -2.57$, $p = 0.02$). The latest symptom was stiffness, where the differences were observed in both frequency and severity. The incidence in patients with heredity was 0.40 ± 0.63 in patients without heredity 1.04 ± 1.21 ($t = 2.19$, $p = 0.03$). The strength of the first group was 0.20 ± 0.41 , while in the second group 0.80 ± 1.118 ($t = 2.42$, $p = 0.02$). All other symptoms did not differ in frequency and intensity in the patients with psychiatric hereditary compared to the patients without heredity.

DISCUSSION

Before you start interpreting the results we must point out the methodological limitations of the study. The study did not include a control group of respondents (respondents who were not psychiatric patients or patients with other psychiatric disorders) and on the basis of the results obtained cannot say whether the results are specific to panic disorder and agoraphobia. The limitation may be that the questionnaire included 9 psychiatric disorders.

Results of family studies have established higher rates of prevalence of panic disorder in first-degree relatives of panic patients compared to studies without a family history of psychiatric di-

sorders. This in itself does not prove that panic disorder is hereditary, because social learning can be explained by transfer of behavioral anxiety from parents to children. [4] And other epidemiological studies involve a family history of the disease among the risk factors for anxiety disorders [9]. However, to our knowledge, the study did not address the question of what are the psychiatric disorders that have an impact in heredity panic disorder and agoraphobia, and therefore we are not able to compare the results of our study with other studies.

The results show that a larger number of patients have a positive family heredity. These data confirm the earlier hypothesis of research, and pointed to the possible association between psychiatric heredity and the development of panic disorder and agoraphobia. We confirmed the results of earlier studies that associated psychiatric disorders in

the family with the development of panic disorder. We also supplemented them, because we obtained results through this study that show us which psychiatric disorders have a role in heredity panic disorder and agoraphobia. All of the psychiatric disorders that were included in the questionnaire (depression, psychosis, obsessive-compulsive disorder, a severe form of fear, panic attacks, agoraphobia, some other form of phobias, alcoholism) were found in the families of the subjects except schizophrenia, not a single respondent mentioned this disorder in the family history.

One of the two disorders that stood out in heredity is alcoholism. Earlier studies found that alcoholism is a disease more common in people who are first-degree relatives of people that had panic disorder [10]. The conducted study demonstrated the association of alcoholism to heredity and panic disorder. Depression proved to be a disease com-

Table 2. Comparison of patients with and without psychiatric heredity
Tabela 2. Komparacija pacijenata sa psihijatrijskim hereditetom i bez herediteta

Supskala Subscale	Pol Gender	Srednja vrednost Mean	SD	t	p
Starost Age	bez herediteta without heredity	32,93	7,90	0,36	0,72
	sa hereditetom with heredity	31,96	8,55		
Ocena zdravstvenog stanja Assessment of health status	bez herediteta without heredity	3,93	0,96	0,28	0,78
	sa hereditetom with heredity	3,84	1,07		
Starost prvog napada Age of the first attack	bez herediteta without heredity	28,33	7,38	0,80	0,43
	sa hereditetom with heredity	26,43	6,97		

monly tied to heredity which has proven its great connectivity with panic disorder. Previous studies have noted the role of depression in the development of panic disorder, but the risk of panic disorder significantly increased in the patients in whose families depression occurred in co-morbidity with panic attacks [11]. However, as the sample of this study contains only 40 respondents it does not have the statistical power on which we could base conclusions about the prevalence and significance of psychiatric heredity for the whole population of patients with panic disorder and agoraphobia. This survey is the first of its kind in our country, and it points to an important phenomenon that should be further investigated in future research on larger samples with the inclusion of control groups of subjects (patients with other psychiatric diagnoses and respondents from the general population).

Studying physical symptoms earlier studies have found that patients who had a positive family heredity for panic disorder had significantly greater fear of bodily excitement and a higher incidence of unexpected panic attacks than patients who did not have family

heredity for panic disorder [12]. We did not come to such conclusions, but the survey showed that the significant differences in the clinical picture of people with psychiatric heredity and without heredity exists in only five symptoms, of which the four symptoms of greater intensity/frequency had respondents from the group without psychiatric heredity. As of 44 symptoms studied, we cannot confirm that more severe patients have no psychiatric heredity because differences in the intensity/frequency of symptoms may contribute to the fact that it is a subjective feeling of the patients.

CONCLUSION

Based on these results, it can be concluded that the majority of the patients with agoraphobia and panic disorder have a positive psychiatric heredity, mostly depression and alcoholism. We concluded that the patients with psychiatric heredity do not exhibit a severe clinical picture, nor do they have a significantly earlier onset of panic attacks, compared to the patients without psychiatric heredity.

ISPITIVANJE PSIHIJATRIJSKOG HEREDITETA KOD PACIJENATA SA AGORAFBIJOM I PANIČNIM POREMEĆAJEM

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Engrami • vol. 37 • april-jun 2015. • br. 2

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Kratak sadržaj

Uvod: U našoj zemlji do sada nije bilo ispitivanja psihijatrijskog herediteta kod pacijenata sa agorafobijom i paničnim poremećajem.

Cilj: Ciljevi istraživanja su: 1) da se ispita postojanje psihijatrijskog herediteta kod pacijenata sa agorafobijom i paničnim poremećajem i 2) da se uporede kliničke i demografske karakteristike pacijenata sa agorafobijom i paničnim poremećajem sa psihijatrijskim hereditetom i pacijenata bez herediteta.

Materijal i metode: Uzorak je obuhvatio 40 pacijenata sa paničnim poremećajem i agorafobijom. Podaci su dobijeni na osnovu Upitnika za procenu paničnog poremećaja *NIMH-PQ* koji je obuhvatio pitanja o učestalosti pojave 9 psihijatrijskih oboljenja u užoj i široj porodici, kao i 44 pitanja o jačini i učestalosti simptoma koje su pacijenti ocenili na Likertovoj skali ocenama od 0 do 3.

Rezultati: Rezultati istraživanja ukazuju da većina pacijenata (62,5%) u užoj ili široj porodici ima bar jednu osobu sa psihijatrijskim oboljenjem. Među članovima porodice najčešće su se javljali depresija i alkoholizam. Ispitivanje nije pokazalo značajne razlike u karakteristikama simptoma pacijenta sa psihijatrijskim hereditetom u odnosu na pacijente bez herediteta.

Zaključak: Na osnovu rezultata dolazimo do zaključka da je psihijatrijski hereditet učestao kod pacijenata sa paničnim poremećajem i agorafobijom te su potrebna dalja istraživanja da bi se povezala pojava herediteta i moguće etiologije paničnog poremećaja i agorafobije.

Gljučne reči: Panični poremećaj, agorafobija, depresija, alkoholizam, hereditet

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