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And Anxiety Depressive Disorders in Patients With Families of Covid -19

Rajabov M. N., Ashurov Z. Sh.
Tashkent Medical Academy

Annotation: Resume: A study was conducted among 60 patients with close relatives who had contracted COVID-19, using the HADS – Hospital Anxiety and Depression Scale. According to the results of the HADS questionnaire, the frequency of clinically significant manifestations of anxiety disorders was 19.1%, and the combined occurrence of anxiety and depressive disorders was 36.4%. Anxiety disorders were significantly more common in women, primarily among unmarried women and those with comorbid conditions. According to the CES-D, clinically significant anxiety disorders were identified in 34.5% of respondents, which is 1.5 times higher than the frequency of depression among patients. Depressive disorders were more prevalent in patients over 50 years old. Thus, anxiety disorders were found to be three times more common in patients with close relatives diagnosed with COVID-19 compared to the general population, and anxiety-depressive disorders were more frequent in individuals with chronic pain syndromes. The study highlights the importance of identifying anxiety-depressive disorders in close relatives of COVID-19 patients for the purpose of providing medication and socioeconomic support.

Keywords: depression, anxiety, anxiety-depressive disorders, psychological tests.

Recent studies over the past decade have shown an increasing prevalence of borderline mental disorders among the population. The spread of the COVID-19 coronavirus infection has intensified psychological stress, leading to heightened anxiety about unknown infections and fear for the lives of close family members (2, 8, 10). According to WHO data, borderline mental disorders occur in approximately 10% of the general population; however, these figures have increased several times during the pandemic.

Clinically significant anxiety disorders are found in 5-7% of the general population, while they occur in 25% or more of individuals with close relatives diagnosed with COVID-19. The lifetime prevalence of anxiety disorders may exceed 30% [4].

Epidemiological studies conducted among individuals with close relatives diagnosed with COVID-19 indicate that depressive states are observed in 23.8% of patients. It has been established that the risk of developing depression is higher in elderly patients with low educational levels and unstable social status [7]. During psychiatric evaluations, depressive disorders are identified in 20% of patients within the general medical network [12], and when using scales, this figure rises to 46-56% [11]. However, depression is only recognized by doctors in 4-17% of cases [13].

According to research data, depressive states are often found in patients with acute and chronic brain pathology, diabetes mellitus, ischemic heart disease, heart rhythm and conduction disorders, chronic obstructive pulmonary disease, gastric ulcers, musculoskeletal diseases, autonomic dystonia, and oncological conditions [2, 10, 11, 12]. It is known that depression itself reduces a patient's adaptability and quality of life. Currently, depression is recognized as one of the main causes of disability [6]. The likelihood of disability in patients suffering from depression is 1.78 times higher compared to those without this mental illness.

Recently, the number of studies demonstrating the prevalence of anxiety symptoms or anxiety disorders in patients suffering from depression has been steadily increasing, highlighting its significant importance. For instance, the “RAPSODY” epidemiological study showed that among patients experiencing chronic pain syndrome, anxiety disorders were present in 14% of cases, depression in

17%, and both anxiety and depression together in 36%. These conditions, in turn, exacerbate the severity of each syndrome as well as the progression of neurological and/or somatic diseases [4].

The increase in borderline mental disorders among the population can be explained by urbanization, migration, rising population density, continuously increasing stress levels, and weakened social support. The prevalence of affective disorders is often linked to the increased longevity of individuals with chronic somatic diseases that frequently coexist with anxiety-depressive disorders [9].

Emotional stress leads to the breakdown of regulatory mechanisms and a decrease in an individual's adaptability. A constant lack of satisfaction from social activities, uncertainty and hopelessness in solving tasks, and restrictions on emotional expressions conditioned by behavioral norms often result in a loss of mental well-being and emotional balance in modern individuals. All of this exacerbates nervous tension, which can gradually evolve into a state of chronic psycho-emotional stress. People in this group experience reduced resilience to stress, and their ability to adapt to changes in external and internal environments is compromised [1].

From this perspective, the mental health of individuals with close relatives diagnosed with COVID-19 deserves special attention. They constantly bear the burden of social, professional, economic, and family problems that cause anxiety for themselves and many patients. Engaging with and addressing the problems of their loved ones forces them to set aside their own concerns, which in turn increases the risk of developing or worsening existing health conditions and diminishes their work capacity.

Objective and Tasks of the Study: The main aim of the study is to investigate anxiety-depressive disorders among individuals with close relatives diagnosed with COVID-19, focusing on their age, gender, marital status, education level, and the presence of chronic somatic diseases.

Materials and Methods: The study utilized the Hospital Anxiety and Depression Scale (HADS) and a depression scale. A total of 60 patients with close relatives diagnosed with COVID-19 were examined in Tashkent. Among these, 54 were women and 6 were men, with an average age of 43.18 ± 1.21 years.

Results:

- 34 patients (56.7%) were married, while 26 (43.3%) were not married.
- 36 patients (60%) had chronic illnesses, including:
- Hypertension - 12 (20%)
- Vegetative dystonia syndrome - 6 (10%)
- Ischemic heart disease - 2 (3.33%)
- Chronic gastritis - 8 (13.3%)
- Chronic obstructive pulmonary disease - 1 (1.67%)

A total of 28.3% of patients (17 individuals) had combined somatic pathologies. Only one patient with anxiety-depressive disorder was treated by a psychiatrist.

The study results highlight the necessity of identifying and addressing psychological issues among individuals with close relatives diagnosed with COVID-19.

The mental state of participants in the study was assessed using two questionnaires: the Hospital Anxiety and Depression Scale (HADS) and the Center for Epidemiologic Studies Depression Scale (CES-D). The validity, sensitivity, and specificity of the HADS and CES-D questionnaires have been demonstrated in recent studies.

In the HADS questionnaire, scores of 6-9 on each subscale indicate subclinical levels of anxiety/depression, while scores of 10 or higher indicate clinically significant levels. A total score of 19 or more on the HADS scale is considered indicative of anxiety-depressive disorders. According to the CES-D scale, a score of 19 or higher is a diagnostic criterion for depression. Scores between 19

and 25 indicate mild depressive symptoms, while scores above 26 suggest that the patient requires referral to a psychiatrist.

Statistical analysis of the results was performed using the Statgraphics 5.0 software package. The reliability of the results for normal distribution was assessed using the Student's t-test, and when normal distribution assumptions were not met, the Wilcoxon test was used. Changes were considered significant at $p < 0.05$. The correlation coefficient (r) was also calculated.

Results and Discussion

According to the HADS scale, among individuals with close relatives diagnosed with COVID-19, subclinical anxiety was observed in 27 participants (45.0%), while clinically significant anxiety was identified in 11 individuals (18.3%). Subclinical depression was noted in 14 participants (23.3%), and 10 individuals (16.7%) exhibited clinical depression. Combined anxiety-depressive disorders were observed in 22 subjects (36.7%).

Using the CES-D scale, a diagnosis of depressive disorders was made for 21 participants (35.0%), with mild depression identified in 11 (18.3%) and severe depression in 9 subjects (15.0%).

When comparing the results of depression identification using both scales (HADS and CES-D), no correlation was found (r=0.67, r=0.07). Therefore, both questionnaires were used to assess the presence and severity of depression. The depression identified by both the CES-D and HADS scales was deemed clinically significant.

These findings highlight the complexity of mood disorders in individuals related to COVID-19 patients, emphasizing the importance of using multiple assessment tools for accurate diagnosis and intervention.

According to the HADS data, anxiety disorders were more frequently diagnosed in women. Subclinical anxiety was found in 25 women (46.3%) and 2 men (33.3%). Clinically significant anxiety was not identified in men but was noted in 11 cases (20.4%) among women ($r<0.05$). HADS results indicated no clinically significant depressive disorders in men; however, 10 women (18.5%) had clinical depression, while subclinical depression was observed in 1 man (16.7%) and 13 women (24.1%).

From the CES-D scale, among the 60 participants, 21 (35%) were diagnosed with depressive disorders. Mild depression was found in 11 women (20.3%) and 1 man (16.7%), while only 9 women (16.7%) were identified with severe depression. No depressive disorders were observed in 5 men (83.3%) and 34 women (62.9%) (r=0.09).

The HADS scale did not reveal significant differences in anxiety disorder prevalence between individuals under and over 50 years of age. However, a notable difference was found in clinically significant depression rates between these age groups. Specifically, HADS data indicated that 7 individuals over 50 (32%) and 5 individuals under 50 (8%) exhibited clinically significant depression (r=0.001). The CES-D scale similarly recorded severe depression in 6 individuals over 50 (24%) and 3 individuals under 50 (8%) (r=0.001).

Clinically significant anxiety disorders were significantly more prevalent among unmarried, divorced, and widowed individuals, with 5 out of 23 such cases (22%) identified compared to only 3 out of 32 married individuals (9%, $r<0.05$). No significant differences were found in the emergence of depression based on marital status.

These findings underscore the need for targeted mental health interventions, particularly for vulnerable groups such as women and those with less stable social circumstances.

Anxiety disorders were less frequently identified in individuals with close relatives diagnosed with COVID-19, showing a tendency towards reliability (r=0.07) with 33 out of 60 participants (55%). No significant differences in education levels were found among patients with depression. In individuals

with chronic somatic illnesses, anxiety disorders were present in 70% of cases (42 individuals), compared to 51.6% (31 individuals) in those without such conditions ($r<0.001$).

The HADS scale revealed that subclinical depression was more prevalent among those with chronic illnesses, occurring in 22 out of 60 participants (36.7%), in contrast to only 3 out of 44 individuals (7%) without somatic diseases ($r<0.001$). According to the CES-D data, mild depression was more frequently observed in individuals with somatic illnesses, with 8 out of 34 (23.5%) affected, compared to only 3 out of 22 (13.6%) in those without chronic conditions ($r=0.09$).

Thus, our research indicates that clinically significant anxiety disorders occur three times more frequently in individuals with close relatives diagnosed with COVID-19 compared to the general population [2, 4].

Our data suggest that the CES-D scale provides a more comprehensive assessment of depressive states and their severity compared to the HADS. According to this scale, depression is observed more frequently in individuals with close relatives diagnosed with COVID-19 than in the general population. The results indicate that combined anxiety-depressive disorders in this group align with the frequencies found in individuals suffering from chronic pain syndromes [4].

Conclusion

Anxiety disorders and depressions, particularly those of clinical significance, are more prevalent in women. This is undoubtedly related to the social-psychological and daily challenges women face, such as loneliness, caregiving for children and elderly parents, and emotional disturbances linked to menstrual and generative functions. Individuals who are single often experience anxiety more frequently and severely. Pathological anxiety is commonly found in those with secondary education and is often underdiagnosed by healthcare professionals.

Anxiety-depressive disorders occur significantly more often in medical staff over the age of 50. This may be associated with long work experience in challenging socio-economic conditions, the prevalence of chronic somatic diseases, and age-related declines in adaptability and stress resilience. Among individuals with close relatives diagnosed with COVID-19, those with chronic somatic illnesses exhibit a notably higher incidence of anxiety-depressive disorders. Remarkably, only one individual with anxiety-depressive disorders was under psychiatric care, while others remained undiagnosed and untreated despite a decline in their work capacity.

Our study highlights the importance of identifying anxiety-depressive disorders in individuals with close relatives diagnosed with COVID-19 to provide necessary support. This support encompasses not only medication but also social and economic assistance. The ability of these individuals to engage fully in their professional activities and, more broadly, the health of the population, will depend on how attentively the state and society address this issue.

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