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Case Report

Delusional Disorder in Patient with Comorbid Depression

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Abstract

Delusional disorder is defined in the DSM-5 as the presence of one or more delusions for a month or longer in a person who, except for the delusions and their behavioral ramifications, does not appear odd and is not functionally impaired. A 67-year-old male with no past psychiatric history presented to the emergency department for anxiety, paranoia, and insomnia for the past 9 months. His behavior change began after the pipes in his house burst, and he said he saw blue dust all over his house. Since then, he endorsed a multitude of physical symptoms, as well as an obsession with the dust in his house and thoughts of being poisoned. He also described hallucinations of Jesus arguing with God. He also endorsed suicidal ideation. After being admitted to the psychiatry unit, he was diagnosed with MDD with psychotic features. He was discharged home with Seroquel and mirtazapine. One month later, he presented to the ED for the same hallucinations and SI. After failure of various antipsychotic medications, the diagnosis of Delusional Disorder was made, and he was started on CBT.

Keywords: Delusional Disorder; Major Depressive Disorder; Generalized Anxiety Disorder; Paranoia; Insomnia; Cognitive Behavior Therapy

Abbreviations

MDD: Major Depressive Disorder; SI: Suicidal Ideation; CBT: Cognitive Behavior Therapy; ED: Emergency Department; OCD: Obsessive Compulsive Disorder

Introduction

A delusion is a fixed, false belief based on an inaccurate depiction of external reality, despite evidence to the contrary [1]. Delusional disorder is defined in the DSM-5 as the presence of one or more delusions for a month or longer in a person who, except for the delusions and their behavioral ramifications, does not appear odd and is not functionally impaired [2]. The diagnosis of delusional disorder comes after a patient has been having delusions for one month or more and there is no physiologic explanation for their thinking [3]. Delusional disorder coupled with many anxiety-provoking events can lead to psychotic symptoms, as seen in the case we will present.

Case Report

A 67-year-old male with no psychiatric history presented to the emergency department for a mental health evaluation for worsening anxiety, paranoia, and insomnia for the past 9 months. His behavior change began after the pipes in his house burst, and he said he started of seeing blue dust inside his house. Since then, he endorsed a multitude of physical symptoms, as well as an obsession with the dust in his house and thoughts of being poisoned. Furthermore, he states hallucinating the image of "Jesus arguing with God". The hallucinations, paranoia, and anxiety led him to having suicidal ideation. After initial evaluation in the ED, he was admitted to the psychiatric unit. Hospitalist service was consulted for physical symptoms such as dry sinuses and persistent dry mouth, cold intolerance, and worsening psoriasis. He stated that these symptoms started when the pipes in his house burst, and he believed that they were a result of copper poisoning. His medical work-up

was unremarkable and a diagnosis of major depressive disorder with psychotic features was made. He was discharged from the psychiatric unit three days after admission on Seroquel and mirtazapine. Approximately one month after admission, he presented to the emergency department again, for similar hallucinations as well as suicidal ideations and engaging in self harm. He was admitted to the psychiatric unit once again and complained of "feeling that copper is entering his bloodstream and poisoning him via dispersal through his vents at home". During his second hospital stay, he was treated with various antipsychotic medications to alleviate the distress caused by the auditory hallucinations. He was also treated with benzodiazepines for anxiety and sleep, of which the patient did not find much significant improvement. After which, the diagnosis of Delusional Disorder was made, and the patient was started on CBT in addition to his current medication regimen. At a four week follow up appointment, he was beginning to have a moderate improvement in symptoms. The hallucinations were occurring less frequently and began acknowledging there may not have been copper poisoning.

Discussion

Delusional disorder is often misdiagnosed because it is generally thought of as a diagnosis of exclusion. In fact, the differential for delusion is rather extensive including delirium, dementia, major depressive disorder with psychotic features, severe anxiety, OCD, schizophrenia, etc. [3]. In our patient, during his first admission he was diagnosed with MDD with psychotic features and placed on Remeron 15 mg PO once nightly and, Seroquel 150 mg PO every day. Within four weeks the patient was readmitted with similar delusions of copper poisoning from the new pipes installed in his house. During the second admission, his diagnosis was expanded to include generalized anxiety disorder and panic disorder, before ultimately being diagnosed with delusional disorder. This case highlights the difficulty in diagnosis and treatment of delusional disorder especially those with comorbid psychiatric illnesses. Persistent delusions can cause anxiety and depressive symptoms which may complicate the diagnosis. In our patient, his anxiety was evident, as demonstrated by his worries of possible long-term effects of the poisoning, looking for a new place to live, managing his finances, and selling his current house, which he believed was ruined by copper. It was difficult to differentiate true anxiety disorder or anxiety secondary to delusions. However, when speaking with the patient, it became clear that he was unable to separate reality from his anxiety triggers. Talk therapy did not ease any of his concerns and he was fully immersed in the idea that he was poisoned. This is one of the factors that lead us to the diagnosis of delusional disorder versus generalized anxiety.

Comparing MDD with psychotic features to delusional disorder, delusional disorder is often refractory to medical and psychotherapy. In the Treatment for Delusion Disorder study, psychotherapy, and medication vs. placebo in the treatment for delusional disorder yielded no clinically significant results. Although a positive effect was found from CBT in increasing social self-esteem, CI was 7.51 to 53.49, which is low evidence [4]. This was seen in our patient, as he was initially treated with Remeron and Seroquel with no relief. If he simply had MDD with psychotic features, one would expect improvement of symptoms with this psychopharmaceutical regimen. Given the lack of improvement, the diagnosis of delusional disorder became more likely. Another distinction is that in MDD with psychotic features, the psychosis only presents in episodes of severe depression, it is not constant. This can be contrasted to the delusions in schizophrenia and delusional disorder, in which the patient does not have times that they believe their delusion to be untrue [5]. Our patient always believed that his house was poisoned with copper and causing him to have all of the somatic symptoms he was experiencing, his delusions were constant.

Substantial accumulation of stress can lead to delusional disorder. One of the original explanations for delusional disorder came in the 19th century, with the thought that vulnerable personality traits (i.e. low self esteem, hypersensitivity, etc.) and the addition of repeated distressing insults, can lead to delusions and if not resolved, can lead to delusional disorder [6]. Another longitudinal study suggests that hypersensitivity and defense mechanisms such as reaction formation, projection, and denial, along with distrust, suspicion, and low self-esteem can all lead to delusional disorder [7]. Our patient demonstrated hypersensitivity to the stress around him, and this along with his lifelong low self-esteem contributed to his paranoia. This is happening more frequently as of late, with many changes in the country causing debilitating worry in people who already struggle with anxiety. This patient referenced many concerns regarding the current unrest of the country and economy. He referenced the stock market crash in 2008 and how he felt it was going to happen again. He was unsure of how he would pay his bills and he brought up concern for being able to financially support himself when he was out of the hospital. It is very likely that

the accumulation of changes and uncertainty going on around him were too much for his already worn-down personality.

Furthermore, the introduction of COVID-19 has yielded increasing rates of mental health illnesses. Epidemiology of mental health problems in COVID-19: a review, outlines several risk factors for poor mental health such as age, gender, marital status, exposure to COVID-19, and many more. It discusses that people affected by the pandemic have a high risk of mental health problems, and those with the precious listed risk factors are at experiencing mental health burdens at an even higher rate. Many of these risk factors were present in our patient such as older age, single, and male [8]. The excess anxiety he was experiencing likely led to paranoia that eventually presented as delusional disorder.

Conclusion

In this case, the patient had an unusual presentation as his diagnoses of MDD with psychotic features, GAD, and panic disorder made it difficult to diagnose his underlying delusional disorder. Lastly, we'd like to highlight the subtle differences between depression/anxiety and delusional disorder. In the future, clinicians should consider including delusional disorder on the differential in patients with similar presentations.

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Conflict of Interest

The authors have no financial interest or any conflict of interest to declare.

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