•Case report•

Case report of visual hallucinations in anxiety

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Summary: Hallucinations rarely occur in individuals with anxiety disorders. This case report describes a 36-year-old male with Social Phobia and Agoraphobia with Panic Attacks who had prominent visual hallucinations that were both distressing and incapacitating. Treatment with sertraline 200 mg/d, clonazepam 1 mg/d, and propranolol 20 mg/day for one month completely resolved both his anxiety and the hallucinations, after which he was able to return to his social and occupational life. The report underscores the fact that visual hallucinations are not always indicators of a psychotic disorder, they may be present across a spectrum of mental disorders. In cases where hallucinations occur in non-psychotic disorders, treatment of the underlying condition usually simultaneously resolves the associated hallucinations without the need to resort to the use of antipsychotic medication. Detailed analyses of such unusual cases can help improve our understanding of the pathogenesis of psychotic-like symptoms.

Key words: visual hallucinations; anxiety disorders; case report; India

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1. Case history

A 36-year-old married Hindu male presented to the psychiatry unit based in a tertiary care general hospital in New Delhi, India. He was accompanied by his wife and father, who were the primary informants and caregivers. The patient was referred by the government institute where he was employed because he had difficulty interacting with his colleagues, appeared extremely worried and fearful, frequently trembled, sweated profusely, and isolated himself from others.

As described by the patient and his wife, he had an 8-year history of anxiety and apprehension associated with autonomic complaints of sweating, palpitations, dryness of the mouth, and fidgetiness and tremulousness of the hands. He had difficulty interacting with people at social gatherings, meeting new people, and speaking in front of his colleagues and seniors; but he could interact properly with his friends and family members. He was also afraid of closed spaces such as elevators and stores, and of crowded places such as markets, buses, and subways. His anxiety and autonomic symptoms intensified in these places and circumstances, sometimes to an extent that he would feel that he was about to die from choking, lack of breath or severe palpitations. These problems had worsened in the past 2 months, possibly because he was transferred to another office where he had to deal with new people.

The patient also reported seeing images of a lady that no one else could see during the last 2 months. These clear and distinct images occurred when he was awake and fully conscious and appeared real. He reported seeing them five to ten times a day, for 5 minutes at a time. Sometimes, the image would say some words to him in a language he could not understand. The patient was usually fearful of these images. His father reported that the images appeared when the patient was very anxious, fidgety, and sweating heavily.

The patient had previously had two depressive episodes that lasted for around 3 months each and resolved completely with treatment, one 1 year previously and one 7 years previously. However, no medical records were available about these episodes. There was no family history of significant mental illnesses. The patient had no history suggestive of drug

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or alcohol abuse, head injury, significant medical illness, or other psychiatric illness. No symptoms suggestive of depression were reported during the current episode.

On mental status examination the patient appeared anxious and fidgety. There was increased psychomotor activity, increased rate of speech, and poor eye contact. He reported visual hallucinations that he believed to be real (i.e., he had no insight about these symptoms) but his higher mental functions were intact except for inattention and distractibility. His general physical examination was normal except for tachycardia (pulse 120/minute), increased sweating, hand tremors, and a trembling voice. The patient's test results including blood cell counts, kidney and liver function tests, electrolytes, and blood glucose were all within normal limits. A Magnetic Resonance Imaging scan of the head revealed no significant abnormality.

The patient was admitted for diagnosis and management. An initial assessment of the patient's symptoms using the Hamilton Anxiety Rating scale (HAM-A)[1] and the 17-item version of the Hamilton Depression Rating Scale (HAM-D)[2] indicated moderate-to-severe anxiety (HAM-A score of 26) and mild depression (HAM-D score of 8). Based on criteria in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV),[3] the patient was given the comorbid diagnoses of Social Phobia and Agoraphobia with Panic Attacks. The patient was started on oral sertraline 50 mg/day, clonazepam 0.5 mg twice a day, and propranolol 20 mg/day (for his disabling tremors). The dose of sertraline was increased to 200 mg/day after 2 weeks, clonazepam was tapered off within 1 month, and propranolol was stopped after 2 weeks. After 4 weeks of treatment the visual hallucinations resolved completely (without any use of anti-psychotic medications), and there was a significant improvement in the patient's anxiety symptoms and agoraphobia; the HAM-A scores had dropped to 14 and the HAM-D score had dropped to 4.

2. Discussion

Hallucinations are false perceptions – not sensory distortions or misinterpretations – that occur simultaneously with real perceptions.[4] They can occur in all five basic sensory modalities, but auditory hallucinations are the most common. Visual hallucinations have numerous etiologies, but are mostly commonly observed in organic brain disorders and psychoses. Recent articles and reviews have estimated the point prevalence of visual hallucinations in schizophrenia,[5] bipolar affective disorder,[5] delirium,[6] and dementia with Lewy body.[7] Visual hallucinations have also been reported in up to half of patients with Parkinson's disease.[8] Organic causes of visual hallucinations may include Charles Bonnett syndrome, Anton syndrome, seizures, migraine, tumor, peduncular hallucinosis, sleep disturbances, drug effects, inborn errors of metabolism, and Creutzfeldt-Jakob disease.[9] In addition to their occurrence in various organic and psychiatric disorders, up to 6% of the general population report visual hallucinations.[10]

Visual hallucinations and other psychotic features are uncommon in anxiety spectrum disorders, though they do occur. A community-based study reported that individuals with anxiety disorders had a much higher likelihood of reporting visual or auditory hallucinations than those with no mental disorder (odds ratios ranging from 5 to 9).[11] There have been case reports of patients with panic disorder who experienced concurrent delusions and auditory hallucinations in which the psychotic symptoms resolved when the panic symptoms were treated with selective serotonin reuptake inhibitors (SSRIs) and benzodiazepines alone, that is, without the need for antipsychotic medication.[12] Another report described 3 patients with Social Anxiety Disorder who had concurrent delusions.[13]

Anxiety symptoms that are sufficiently severe to meet the diagnostic criteria for anxiety spectrum disorders frequently occur in patients with schizophrenia, particularly during the initial phases of the illness,[14] so in individuals with concurrent anxiety and psychotic symptoms it is important that clinicians identify the primary diagnosis. The case reported here presented with moderately severe symptoms of anxiety and concurrent visual hallucinations. No other psychotic features were present (the patient's insight and self-care were preserved) and no organic abnormalities that could otherwise explain the occurrence of hallucinations were identified. Based on these findings, we assumed that the hallucinations were associated with the anxiety disorder and treated the primary condition with anti-anxiety medications without resorting to the use of antipsychotic medications. After 2 weeks of this treatment there was a substantial reduction in the severity of the anxiety symptoms and the hallucinations had stopped completely, confirming our clinical impression that the psychotic phenomenon were secondary to the anxiety disorder.

It has been suggested that psychotic-like experiences are markers for a distinct psychopathological process that occurs on a continuum of severity from isolated episodes to the full clinical diagnosis of a psychotic disorder.[15] Another approach is to consider psychotic-like experiences nonspecific markers that can occur in any type of mental disorder, including anxiety spectrum disorders. Supporting the latter approach, a meta-analysis by van Os and colleagues[16] reported a median prevalence of psychotic-like experiences of 5.3% in the community and a community-based study by Hanssen and colleagues[17] found that psychotic-like experiences were common in individuals who reported symptoms of depression or anxiety.[16] This case report emphasizes the need for clinicians to distinguish psychotic features observed in individuals with primary anxiety disorders from the more common situation in which anxiety symptoms occur in individuals with primary psychotic disorders. In these situations, presuming that the psychotic symptoms are primary and, thus, treating the patient with antipsychotic

medication would be a mistake and could lead to long-term problems for the patient. Moreover, detailed analyses of such unusual cases can help improve our understanding of the pathogenesis of psychotic-like symptoms.

Conflict of interest

The authors declare that they have no conflict of interest related to this manuscript.

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Informed consent

The patient and his guardian signed an informed consent form and agreed to the publication of this case report.

病例报告：焦虑障碍出现幻视一例

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概述：焦虑障碍患者很少出现幻视。本病例报告描述了一位男性患者，36 岁，患有社交恐惧症和伴惊恐发作的广场恐惧症。该患者幻视明显，令其深受困扰、功能受损。用舍曲林 200 mg/d、氯硝西泮 1mg/d 和普萘洛尔 20 mg/d 治疗一个月后，患者的焦虑和幻视缓解，能继续工作，恢复社会生活。本报告强调这样一个事实，即幻视并不一定预示着精神病性障碍，很多精神障碍都可能出现视幻觉。如果非精神病性障碍患者出现幻视，那么治疗这些非精神病性障碍通常也能同时缓解相关的幻视，而无需使用抗精神病药物。详细分析此类罕见病例有助于加深对精神病样症状的病理机制的认识。

关键词：幻视；焦虑障碍；病例报告；印度

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References

1. Hamilton M. The assessment of anxiety states by rating. *Br J Med Psychol.* 1959; **32**: 50-55
2. Hamilton M. A rating scale for depression. *J Neurol Neurosurg Psychiatry.* 1960; **23**: 56-62
3. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, 4th ed. Text Revision.* Washington: American Psychiatric Association; 1994
4. Jaspers K. *General Psychopathology* (transl. Hoenig J and Hamilton MW). Manchester: Manchester University Press; 1962
5. Waters F, Collerton D, Fytche DH, Jardri R, Pins D, Dudley R, et al. Visual hallucinations in the psychosis spectrum and comparative information from neurodegenerative disorders and eye disease. *Schizophr Bull.* 2014; **40** (Suppl 4): S233-S245. doi: http://dx.doi.org/10.1093/schbul/sbu036
6. Webster R, Holroyd S. Prevalence of psychotic symptoms in delirium. *Psychosomatics.* 2000; **41**: 519-522. doi: http://dx.doi.org/10.1176/appi.psy.41.6.519
7. Ala TA, Yang KH, Sung JH, Frey WH. Hallucinations and signs of parkinsonism help distinguish patients with dementia and cortical Lewy bodies from patients with Alzheimer's disease at presentation: a clinicopathological study. *J Neurol Neurosurg Psychiatry.* 1997; **62**: 16-21. doi: http://dx.doi.org/10.1136/jnnp.62.1.16
8. Williams DR, Lees AJ. Visual hallucinations in the diagnosis of idiopathic Parkinson's disease: a retrospective autopsy study. *Lancet Neurol.* 2005; **4**: 605-610. doi: http://dx.doi.org/10.1016/S1474-4422(05)70146-0
9. Teeple RC, Caplan JP, Stern TA. Visual Hallucinations: Differential Diagnosis and Treatment. *Prim Care Companion J Clin Psychiatry*. 2009; **11**(1): 26-32
10. Kessler RC, Birnbaum H, Demler O, Falloon IRH, Gagnon E, Guyer M, et al. The prevalence and correlates of nonaffective psychosis in the National Comorbidity Survey Replication (NCSR). *Biol Psychiatry*. 2005; **58**: 668-676. doi: http://dx.doi.org/10.1016/j.biopsych.2005.04.034
11. Ohayon MM. Prevalence of hallucinations and their pathological associations in the general population. *Psychiatry Res.* 2000; **97**: 153-164. doi: http://dx.doi.org/10.1016/S0165-1781(00)00227-4
12. Galynker I, Ieronimo C, Perez-AcquinoA, Lee Y, Winston A. Panic attacks with psychotic features. *J Clin Psychiatry*. 1996; **57**(9): 402-406
13. Veras AB, do-NascimentoJS, Rodrigues RL, Guimarães ACA, Nardi AE. Psychotic symptoms in social anxiety disorder patients: report of three cases. *Int Arch Med.* 2011; **4**: 12. doi: http://dx.doi.org/10.1186/1755-7682-4-12
14. Achim AM, Maziade M, Raymond É, Olivier D, Mérette C, Roy M-A. How prevalent are anxiety disorders in schizophrenia? a meta-analysis and critical review on a significant association. *Schizophre Bull.* 2011; **37**(4): 811-821. doi: http://dx.doi.org/10.1093/schbul/sbp148
15. Johns LC, van Os J. The continuity of psychotic experiences in the general population. *Clin Psychol Rev.* 2001; **21:** 1125-1141. doi: http://dx.doi.org/10.1016/S0272-7358(01)00103-9

16. van Os J, Linscott RJ, Myin-Germeys I, Delespaul P, Krabbendam L. A systematic review and meta-analysis of the psychosis continuum: evidence for a psychosis proneness persistence- impairment model of psychotic disorder. *Psychol Med*. 2008; **39**: 1-17. doi: http://dx.doi.org/10.1017/S0033291708003814

17. Hanssen MS, Bijl RV, Vollebergh W, van Os J. Self-reported psychotic experiences in the general population: a valid screening tool for DSM-III-R psychotic disorders? *Acta Psychiatr Scand*. 2003; **107**: 369-377. doi: http://dx.doi.org/10.1034/j.1600-0447.2003.00058.x

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