

•Case report•

Case report of comorbid schizophrenia and obsessive-compulsive disorder in a patient who was tube-fed for four years by family members because of his refusal to eat

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Summary: Refusal to eat is a common presentation in many psychiatric disorders including obsessive compulsive disorder and schizophrenia. In the acute situation it may be a medical emergency; when it becomes chronic it can become an ingrained behavior that is difficult to change. The diagnosis of individuals who refuse to eat may be difficult, particularly in persons with comorbid medical problems, impaired intelligence, or lack of insight into their condition. Tube-feeding is an effective short-term intervention that can be discontinued when the patient re-starts oral intake. However, in some situations patients may become dependent on the use of tube-feeding. We present a case report of a patient with schizophrenia, obsessive compulsive disorder, borderline intelligence, and seizure disorder who was tube-fed by his family members for more than three years because he refused to eat orally.

Keywords: refusal to eat; comorbid psychiatric disorders; schizophrenia; obsessive-compulsive disorder; borderline intelligence; seizure disorder; case report; India

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1. Case history

A 24-year-old unemployed Muslim male from a rural household in Assam who had 8 years of formal education and who was a widower living in a joint family household was brought to the hospital outpatient department by his parents who reported a four-year history of excessive washing of his body and clothes and of refusal to eat. The patient first fell ill in August 2010; over a six-month period he became progressively more isolated, lost interest in daily activities, stopped going to work, and markedly reduced his food intake. At that time he also exhibited excessive washing of his hands and clothes, a symptom that persisted throughout the full course of his illness, which the patient explained as due to concerns about contamination. Over the subsequent six months his behavior became increasingly bizarre and inappropriate (muttering to himself, disrobing in front of other, urinating indoors, etc.), he was frequently agitated, his sleep was reduced, and he refused to eat. He received unspecified

treatment at a local general hospital (which did not include a department of psychiatry) including a 15 day admission in 2011, but his condition did not improve. He experienced two episodes of grand mal seizures while in the local hospital which were presumed to be due to poor nutrition, so he was fed using Ryle's tube. After discharge the patient's family members continued to use Ryle's tube to feed him until the present admission (i.e., for four years).

He was tube-fed glucose water, milk shakes, milk, 'sattu' water (a powder considered rich in nutrients and proteins), liquefied pulses, and rice water in varying quantities by his parents and siblings. There were intermittent unsuccessful attempts to wean him off tube-feeding. His parents were convinced that tube-feeding was the only method to save his life. He occasionally took 5mg olanzapine (via tube) prescribed by local doctors; over time most of the other symptoms resolved except for the repetitive washing and refusal to eat. His symptoms got worse in 2012 after the death

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of his sister. He avoided touching his parents because he believed they had been contaminated by touching the dead body of his sister and, thus, refused to allow them to administer his tube feedings. His siblings or neighbors had to be called to feed him. This greatly inconvenienced the parents and was the main factor that eventually precipitated the index visit to our outpatient department.

On arrival at the outpatient department the patient was uncooperative and responded to questions in monosyllables. There was no evidence of hallucinations or delusions. His general physical examination and routine blood tests (including hematocrit, liver function tests, kidney function tests, electrolytes, serum proteins, blood sugar, thyroid function tests, serum B12, and folic acid) were all within normal limits. He weighed 65 Kg and was 1.75 cm in height, so his body mass index (BMI) was 21.3, well within the normal range (effectively excluding the diagnosis of anorexia nervosa). There was no family history of mental illness or seizures.

A provisional diagnosis of obsessive compulsive disorder (OCD) with lack of insight was made. He was treated with fluoxetine (starting at 20mg/d and gradually increasing to 60mg/d). His symptoms did not improve significantly, so he was admitted to an inpatient service 7 days after the initial outpatient evaluation. At that time, lorazepam 2mg bid was added to his fluoxetine. Seven days after admission he had a grand mal seizure which did not appear to have any effect on his pre-existing symptoms; phenytoin 300mg/d was added to his medication regimen to prevent further seizure episodes. However, electroencephalogram and magnetic resonance imaging conducted within 48 hours of the seizure did not identify any abnormalities.

Both parents stayed in the hospital with the patient. They were reluctant to approve stopping the use of the feeding tube for fear that the patient would starve. Counselling and psychoeducation were provided to reassure the parents, and behavioral methods were employed to gradually wean the patient off the feeding tube. He began accepting oral foods 15 days after admission.

He became more cooperative and interactive after the first week of admission, so his lorazepam was tapered and stopped. After 20 days of admission it became possible to conduct a formal mental status examination. At that time, the patient reported delusional beliefs about contamination and there were several indications of formal thought disorder, including derailment, neologisms, concrete thinking, circumstantiality, and illogicality. An intelligence test revealed borderline intelligence (IQ=75). Based on these findings his diagnosis was changed to schizophrenia with concurrent symptoms of obsessive compulsive disorder, borderline intelligence, and seizure disorder. The medication regimen was then changed to trifluoperazine 10mg/d (subsequently increased to

20 mg/d), fluoxetine 60mg/d, trihexyphenidyl 4mg/d, and phenytoin 300mg/d. The patient showed significant improvement over the subsequent six weeks of admission; the total score of the Brief Psychiatric Rating Scale (BPRS)^[1] dropped from 42 to 24, the score on the Yates-Brown Obsessive Compulsive Symptoms (YBOCS)^[2] scale dropped from 24 to 18, and the score on the Global Assessment of Functioning scale (GAF)^[3] increased from 25 to 55. After discharge the patient adhered to his medication regimen and at six months after discharge his clinical improvement persisted; he was able to maintain his personal hygiene and take care of his daily needs, but he remained socially isolated and was unable to return to work. Ongoing support and education of the parents helped them provide the patient with the supervision he continued to require.

2. Discussion

This case highlights several important issues and challenges. The first challenge was the patient's refusal to eat for the three and a half years prior to admission. Both schizophrenia and OCD may present with this symptom, which can be the result of delusions, command hallucinations, catatonia, or obsessive concerns about contamination. Refusal to eat can also be a symptom of severe depression where it is the behavioral manifestation of nihilistic delusions, hopelessness and a wish to die.^[4] Refusal to eat is also seen in eating disorders, dementia, and pervasive developmental disorders.^[5] Clearly, determining the underlying condition is essential to managing the condition. In the initial emergency situation such individuals are usually spoon-fed, tube-fed, or provided intravenous feeding and may be administered electroconvulsive therapy.^[6] Subsequently behavioral measures may be needed if the behavior becomes entrenched.^[7] Ethically, all such temporary feeding measures should be stopped once the primary disorder is identified and treated, but in this case none of the local physicians attempted to withdraw tube-feeding so the family became convinced that this was the only way to keep the patient alive.

Despite tube-feeding for 3.5 years, the physical health and biochemical measures of the patient were normal on admission, indicating both the level of support provided by the parents – highlighting the centrality of family in Indian culture – and level of nutrients in the liquid diet they administered. However, the onset of seizures during the course of this severe dietary restriction may have been related to biochemical imbalances that were not identified at the time of admission. The combination of medication to treat the underlying disorder(s), behavioral management and social reinforcement for the patient, and education and support for the over-involved parents proved effective in changing this chronic, disabling behavior.

Comorbidity of schizophrenia and OCD is relatively common with a reported prevalence of 8 to 52% in patients with schizophrenia.^[8-10] Obsessive-compulsive

symptoms (OCS) may occur in the prodromal phase of schizophrenia, may be a secondary effect of using neuroleptic medication, or may occur as a co-morbid condition with schizophrenia.^[8] OCS may be difficult to distinguish in the presence of a formal thought disorder or when they are part of a psychotic delusional system.^[11,12] These issues present diagnostic and management challenges when treating such patients. In the index case described, incomplete information, the uncooperativeness of the patient, and the unavailability of past treatment records delayed the final determination of the diagnosis. Inpatient treatment, direct observation on the ward, and the administration of various psychometric tests were needed to clarify the situation. The choice of antipsychotic in patients with comorbid OCD and schizophrenia is complicated because some atypical antipsychotics may precipitate the onset of OCS or increased the severity of OCS.^[13,14] For this reason we decided to treat the patient with trifluoperazine.

On admission the patient had several symptoms suggestive of catatonia – staring, mutism, negativism, and refusal to eat.^[15] But catatonic symptoms can occur both in schizophrenia and OCD, so this did not help in the differential diagnosis. Short-term treatment with lorazepam appeared to improve the catatonic symptoms, and it subsequently became possible to use behavior measures to get the patient to eat by himself, but this result did not help clarify the underlying diagnosis.

This case was complicated by the presence of borderline intelligence. Individuals with borderline intelligence may experience concurrent psychotic symptoms,^[16] but these are commonly non-systematized delusions that they are unable to describe clearly. This made it almost impossible to determine whether his delusional beliefs about contamination were part of an underlying psychotic disorder (i.e., schizophrenia), part of an OCD syndrome with poor insight, or both. Moreover, other signs of formal thought disorder such as illogicality, concrete thinking, and circumstantiality may occur both in schizophrenia and in individuals with borderline intelligence in absence of psychosis.

The presence of seizures in this patient is another complicating issue. Pre-existing psychotic symptoms may improve following seizure episodes,^[17] and new psychotic symptoms may emerge in the interictal and postictal phase of a seizure disorder.^[18] However, in this patient the seizure episodes had no apparent impact on his symptoms or psychopathology so we decided to consider it an independent comorbid condition. Interestingly, the post-seizure EEG showed no abnormalities; this can occur in some cases of seizure disorders.^[19]

Refusal to eat is a common presentation in psychiatric clinics. It can be the behavioral outcome of a variety of medical and psychiatric conditions. It may prove difficult to determine the underlying disorder or disorders if it is not possible to obtain a detailed history from the affected individual or from his or her caregivers. In these cases prolonged observation, usually on an inpatient setting, detailed physical examination and laboratory testing, psychometric assessment and, possibly, trials with different treatment regimens may be required to arrive at the most likely diagnosis. If the refusal to eat is chronic, in addition to the pharmacological treatment of the underlying condition, behavioral interventions with both the patient and the care-givers may be needed to change the ingrained behavior.

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.

因拒食而由家庭成员对其鼻饲四年的精神分裂症和强迫症共病患者一例

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概述: 在许多精神障碍中(包括强迫症和精神分裂症),拒食是常见的表现。当突然出现拒食时,这可能需急诊处理;一旦变成慢性,它就成为一种难以改变的根深蒂固的行为。对拒食患者的诊断可能有难度,尤其是对有共病问题、智力受损或对自身状况缺乏自知力的患者。鼻饲是一种有效的短期干预方法,当患者重新进食时即可中止这一干预。然而,在某些情况下,患者可能变得依赖于鼻饲。

我们介绍一个病例,报告一名患有精神分裂症、强迫症、边缘智力以及癫痫的患者由于拒绝进食而由其家庭成员用鼻饲管喂食超过三年。

关键词: 拒食; 共病精神障碍; 精神分裂症; 强迫症; 边缘智力; 癫痫; 病例报告; 印度

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