

CASE REPORTS

Delusion, obsession, or both? – Clinical case

Delírio, obsessão ou ambos? – Caso clínico

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ABSTRACT

Introduction: Obsessions and delusions are part of a spectrum of irrational thoughts, with obsessions typically associated with insight and delusions characterized by a lack of insight. However, the concept of "obsessions without insight" has been incorporated into diagnostic criteria in recent years. This case report aims to explore the differential diagnosis between psychosis and obsessive-compulsive disorder (OCD) in an 11-year-old boy.

Case description: An 11-year-old boy was admitted to the Child and Adolescent Psychiatry Emergency Department for behavioral changes with four months of evolution. These changes included episodes of aggression toward his mother. In addition, the mother reported that he had developed an obsessive fixation on reading, refused to engage with any form of technology, and reacted angrily when his parents used electronic devices.

Conclusion: The overlap between psychotic symptoms and OCD-related symptoms is well documented in the literature and often complicates diagnosis and treatment. In this case, the lack of insight and positive therapeutic response to risperidone supported the diagnosis of psychosis over OCD.

Keywords: child and adolescent psychiatry; obsessive-compulsive disorder; psychosis

RESUMO

Introdução: Existe um espectro entre obsessões e delírios, sendo ambos pensamentos irracionais. Mas enquanto as obsessões são tipicamente associadas a *insight*, os delírios não o são. Contudo, as "obsessões sem *insight*" foram integradas nos manuais de diagnóstico. O objetivo deste estudo é refletir sobre o diagnóstico diferencial entre psicose e perturbação obsessivo-compulsiva numa criança de 11 anos de idade.

Descrição de caso: Um rapaz de 11 anos de idade foi admitido no Serviço de Urgência de Pedopsiquiatria por alterações comportamentais com quatro meses de evolução, incluindo episódios de heteroagressividade dirigidos à mãe. A mãe reportou que o rapaz tinha desenvolvido uma "obsessão" pela leitura e recusava utilizar qualquer tipo de tecnologia, reagindo com raiva sempre que os pais o faziam.

Conclusão: A literatura sugere uma sobreposição entre sintomas psicóticos e obsessivo-compulsivos, o que pode dificultar o diagnóstico e tratamento. No entanto, a boa resposta terapêutica à risperidona e a ausência de *insight* suportaram o diagnóstico de psicose neste caso.

Palavras-chave: perturbação obsessivo-compulsiva; psicose; psiquiatria da infância e adolescência

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INTRODUCTION

Obsessive-compulsive disorder (OCD) is characterized by the presence of recurrent obsessions and/or compulsions. Psychosis, on the other hand, is defined by impaired reality testing, often with hallucinations and/or delusions, typically accompanied by a lack of insight, resulting in functional impairment.⁽¹⁾

Obsessions and delusions are conceptualized as two ends of a continuum that also includes overvalued ideas.⁽²⁾ Delusions are considered to be strong convictions about false beliefs about external reality that are firmly held despite evidence to the contrary and are ego-syntonic, whereas obsessions are recurrent and persistent thoughts, impulses, or images that are intrusive and inappropriate, cause marked distress, and are ego-dystonic.⁽²⁾

The concept of “schizotypal OCD” suggests that patients with primary OCD have beliefs that can be placed on a spectrum between obsessions and delusions, emphasizing the similarities of irrational thoughts, the former with insight and the latter without insight. In line with this concept, “obsessions without insight” have been included in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM IV).⁽³⁾

Poor insight is relatively common in adults with OCD, with 13.8–30.7% of people with OCD having poor or absent insight.⁽⁴⁾ In fact, poor insight has been associated with an earlier age of onset and a more chronic course of OCD.⁽⁵⁾ In addition, studies show that poor insight is associated with higher rates of anxiety and depressive symptoms.⁽³⁾

The literature shows that OCD is a common comorbid disorder in patients with psychotic disorders.⁽⁶⁾ In a 2016 study, the authors found that 25% of patients with schizophrenia had obsessive-compulsive symptoms, and 12% of these patients had OCD.⁽⁷⁾

The onset of obsessive-compulsive symptoms has been described at different stages during the course of psychotic illness: (1) before psychosis as independent, coexisting symptoms or diagnosed OCD; (2) before psychotic manifestation as part of the at-risk mental state; (3) concurrent with the first manifestation of psychosis; (4) after the first psychotic episode during the course of chronic schizophrenia; and (5) as *de novo* obsessive-compulsive symptoms after initiation of antipsychotic treatment.⁽⁸⁾

There are also reports of a higher prevalence of psychotic-like symptoms in patients with OCD.⁽²⁾ Furthermore, OCD has been reported to be a risk factor for the subsequent development of psychosis and for the transition of psychotic experiences to clinical psychosis requiring treatment.⁽⁹⁾

In this report, the authors describe the case of an 11-year-old boy with active avoidance of all types of electronic devices, whose initial observation raised suspicion of a first psychotic event, and highlight the differential diagnosis between psychotic disorder and OCD.

CASE REPORT

Observation in the Child and Adolescent Psychiatry Emergency Department

An 11-year-old boy was admitted to the Child and Adolescent Psychiatry Emergency Department for significant behavioral changes with four months of evolution. These included episodes of heteroaggressiveness toward his mother when she tried to get him to use electronic devices. The mother reported that the boy had developed an obsession with reading, stating that “He seems to feel compelled to read everything he can”, and denied any history of obsessive-compulsive symptoms. She said that he had become increasingly isolated, refusing to use any kind of electronic device and reacting with anger when his parents used their mobile phones, often trying to stop them. At school, he showed greater isolation from peers, choosing to spend his recess reading rather than interacting with them.

Personal medical background

The child was being followed in a Developmental Pediatrics clinic for attention-deficit/hyperactivity disorder (ADHD) and had been taking lisdexamphetamine for one year. He had previously been treated with long-acting methylphenidate. In addition to ADHD, he had a history of hypothyroidism and was treated with levothyroxine.

On observation in the Emergency Department, the child exhibited persistent avoidance of eye contact, with gaze fixed on the wall. He presented in a neutral mood with inexpressive facies, marked anxiety, and subjective distress. He adopted a defensive posture, which translated into sparse, predominantly provocative discourse. Although no overt disturbances in thought or sensory perception were observed, they could not be ruled out.

Given these behavioral changes and the potential for psychostimulants to increase the risk of a first psychotic event, lisdexamphetamine was discontinued and the boy was started on risperidone 1 mg at night. In addition, an urgent Child and Adolescent Psychiatry appointment was scheduled.

First appointment

The boy was accompanied by his parents to the first Child and Adolescent Psychiatry appointment. In addition to the information provided in the Emergency Department, the mother reported that since the end of the previous school year, he had developed the habit of using a treadmill whenever he ate something he perceived as unhealthy. She also noted that whenever he looked at a screen, he said “I have become stupid,” and felt compelled to drink water and eat dried fruit. The mother further explained that he would tell people on the street to get away from electronic devices. Over the past four months, he had refused to answer his cell phone, hidden his parents’ phones, and actively avoided electronic devices. The parents reiterated his compulsion to read constantly, even to the point of reading shampoo labels while bathing. The mother also observed

that he often seemed to be reading the same page repeatedly. In addition, the boy expressed the desire to talk to a friend, but when the mother encouraged him to use WhatsApp, he admitted that he was afraid to do so.

The boy lived with his parents and had no siblings. Family history included depression in the mother after the death of her grandfather and symptoms compatible with anxiety, a tic disorder in the father, a cousin with autism spectrum disorder (ASD), and a second cousin who had committed suicide.

The child walked into the office on his own and was reading a book. He was defensive and uncooperative, resisting being alone with the technicians and constantly asking to leave. He exhibited evasive eye contact and constantly looked steadily to the opposite side of the room from the technicians or to the posters on the wall while continuously reading the information contained therein. Eye tics and finger twisting movements were present. His attention was easily obtained and maintained. He denied alterations in thought or sensory perception, but these could not be ruled out.

In the one-on-one interview, the boy stated that he read frequently because he enjoyed it and felt comfortable doing so. He denied fearing that something bad would happen if he stopped reading. He said that he thought he might become stupid if he stared at screens for too long and also claimed that yelling at people to get away from electronic devices was meant as a joke.

At this consultation, it was decided to increase the dose of risperidone to 1 mg twice daily. The patient was referred to a Neuropediatrics consultation, and an analytical study and magnetic resonance imaging (MRI) were performed to exclude the possibility of non-psychiatric organic disorders that could cause psychotic symptoms, such as brain tumors or encephalitis. Analytical and MRI findings were unremarkable.

Subsequent appointments

At the second appointment, 15 days later, the boy reported that he had started watching videos on television but experienced headaches and eye pain while doing so. He explained that he had read on Google that electronic devices were harmful to the brain and could make a person "dumb." He also shared that drinking water after looking at electronic devices seemed to alleviate his headaches.

During the interview with his mother, she noted that the boy continued to run on the treadmill after eating and would frequently comment on the calories he had burned. He expressed concerns about being "fat" and even mentioned that he would throw himself out of the car to "get rid of the fat." Additionally, he still refused to answer phone calls from his father or aunts. When his mother held the phone near his face for him to speak with his father, he would put a book in front of his face.

Behavioral observation during this appointment overlapped with the previous one, although the boy seemed more cooperative. Based on these findings, it was decided to increase the risperidone dosage

from 1 mg to 1 tablet in the morning and 2 tablets in the evening.

Fifteen days later, the boy returned for a follow-up consultation, reporting that he had started playing computer games and talking to his best friend on WhatsApp. At this point, he was only reading textbooks and spending school breaks with four peers.

The mother mentioned that, in addition to the excessive use of the treadmill, the boy frequently weighed himself and expressed concerns about being overweight, saying, "I don't want to be fat because fat people aren't smart."

At the next appointment, one and a half months later, the boy reported significant improvement. He reported using social networks, watching videos on YouTube, and playing computer games. He denied previous fears of "becoming dumb" from looking at electronic devices or feeling the need to drink water or eat nuts while using them. He had also stopped using the treadmill and was no longer concerned about calories.

The mother reported giving him ethyl loflazepate to manage anxiety before school tests and presentations. She also mentioned that he expressed fear of elevators and airplanes.

At the next appointment, the boy remained anxious and expressed ruminative concerns about the future, fearing that he would become a "nobody" due to a slight drop in school grades. Given the worsening of his anxiety and fears, valerian 500 mg was prescribed, and he was referred for psychotherapeutic intervention to address anxiety.

One month later, the boy had gained 10 kg since starting risperidone and again expressed concerns about his weight. His anxiety persisted despite valerian. During this time, the mother disclosed that she and the father were divorcing due to an extramarital affair. In this context, the child expressed several fears about the future, including financial instability and the possibility of having to emigrate. Fluvoxamine 25 mg was initiated to manage worsening anxiety, and it was recommended to increase the frequency of psychotherapy sessions from monthly to weekly.

At the subsequent appointment, two months later, the boy expressed heightened fears. He refused to go to Sunday school because it was at night and he was afraid that his house would be robbed or something would happen to his mother. He also wanted to bring his phone to karate classes out of fear that his mother would forget to pick him up. Additionally, after recovering from a urinary tract infection, he frequently went to the bathroom for fear of not being able to urinate. The mother provided a report from the ongoing psychological evaluation, which concluded that the boy exhibited invasive phobias, recurrent obsessive thoughts, and associated compulsive behaviors. Cognitive-behavioral therapy was initiated, focusing on cognitive restructuring to help him understand the relationship between his thoughts, behaviors, obsessions, and rituals/compulsions, and to develop strategies for neutralizing these thoughts and achieving relief. In addition, due to significant weight gain and the need for more convenient dosing, risperidone was discontinued and replaced with paliperidone 6 mg daily.

At a follow-up two appointments later, the boy described persistent

obsessive thoughts requiring repetitive compulsions/rituals, such as fear of not being able to urinate if he did not count the squares on the floor. The fluvoxamine dose was increased to 50 mg, resulting in a significant improvement in anxiety and a marked reduction in compulsions within two months.

However, due to ongoing concerns about appetite and weight gain associated with paliperidone, treatment was switched to aripiprazole, a medication less commonly associated with weight gain.

DISCUSSION

Criterion A for OCD in the DSM-5 requires the presence of obsessions, compulsions, or both.⁽¹⁰⁾ However, in the absence of underlying obsessions, repetitive behaviors lack diagnostic specificity, as they can manifest in diverse psychopathological forms, including tics, stereotypic movements, delusions, command hallucinations, passivity experiences, or even impulses.⁽¹¹⁾

Given that psychosis is rare before the age of 13, it could be argued that it is statistically unlikely that the condition described was a psychotic episode. However, the onset of psychotic symptoms is significantly earlier in the schizo-obsessive group.

A 2015 study showed that obsessive symptoms can influence delusional experiences, especially in individuals with high levels of trait anxiety. Under emotional distress, patients with OCD may begin to perceive their obsessive thoughts as justified or reasonable, aligning more closely with delusional thinking.⁽²⁾ This is particularly relevant to the clinical case described, as the child was described by the parents as having baseline anxious functioning.

In a study of 311 patients at ultra-high risk for psychosis, the authors found that OCD was significantly more common at follow-up in those who developed psychosis (22.4%) compared to those who did not (3.9%).⁽¹²⁾

In this case, the remission of symptoms with risperidone suggested that they were more consistent with a psychotic presentation. However, it is worth noting that treatment with atypical antipsychotics has also shown benefit in some individuals with OCD who have poor insight. Nevertheless, this requires further study due to mixed results in the literature.⁽¹³⁾

The addition of antipsychotics to selective serotonin reuptake inhibitors (SSRIs) has been shown to be an effective augmentation strategy for refractory OCD.⁽¹⁴⁾ A recent review on the efficacy of antipsychotic augmentation in the treatment of SSRI-resistant OCD found that approximately one-third of patients benefited from this approach. Among the available agents, risperidone has been recommended as a first-line option over quetiapine and olanzapine due to its favorable risk-benefit profile.⁽¹⁵⁾

In this case, several clinical features pointed to a diagnosis of psychosis. The boy's defensive posture, avoidance of eye contact, ego-syntonic cognitions, and lack of insight were consistent with psychotic processes. Additionally, his social isolation, episodes

of heteroaggressiveness when forced to use electronic devices, and unusual behaviors (such as refusing to use screens and telling strangers to stay away from them) represented a marked deviation from his typical functioning, further supporting the psychosis hypothesis.

Some of the patient's behaviors could be interpreted as compulsions, such as the need to drink water or eat dried fruit after looking at a screen to avoid "becoming dumb." However, these obsessions and compulsions seemed bizarre and atypical.

At the last appointment, the patient presented with increasingly frequent obsessive thoughts and compulsions that significantly impaired his daily functioning and fulfilled the criteria for OCD. The fluvoxamine dose was increased to 50 mg, resulting in a good clinical response. Nonetheless, the prevailing suspicion remains that the patient experienced a first psychotic episode early in the follow-up period, as evidenced by markedly disorganized behavior, which deviated significantly from his baseline functioning.

Continued observation and follow-up led to conclude that the patient most likely had a first psychotic episode with comorbid OCD. The obsessive-compulsive symptoms became more pronounced after the remission of psychotic symptoms with risperidone.

Overall, this case highlights the diagnostic and therapeutic challenges of managing overlapping psychotic and obsessive-compulsive symptoms. The patient's adolescent stage, ongoing developmental processes, and complex family dynamics are critical factors that will continue to influence his clinical trajectory.

AUTHORSHIP

Francisca Bastos Maia - Conceptualization; Data curation; Investigation; Methodology; Writing – Original draft
Filipa Cordeiro - Methodology; Writing – review & editing
Vânia Martins Miranda – Supervision; Validation; Writing – review & editing

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