**Abstract**

Anorexia Nervosa (AN) has high levels of mortality and disability [1] commonly associated with a chronic course [2], similar to Schizophrenia (SCZ). Current literature suggests that AN and SCZ could somehow be correlated disorders [3]. Occasionally, AN and SCZ have symptoms in common, like a disturbance of thought content, since in AN there can occur severe distortions of how an individual thinks about himself/herself [4]. Therefore, when both AN and SCZ symptoms occur in the same individual, it could be a confounding factor to a diagnosis, especially when there are severe AN body distortions [5]. Additionally, a higher frequency of psychotic symptoms can be noted among individuals with eating disorders, and the prevalence of AN in SCZ patients is higher than in the general population [6].

To investigate how some of these symptoms share common psychopathology features, we report a case of a 23 years-old female patient with a SCZ diagnosis that presented important AN symptoms. We also discuss the similarities of SCZ and some symptoms of severe AN.

**Keywords:** Anorexia nervosa; Schizophrenia.

**Case presentation**

A 23 years-old black woman accompanied by her mother, who described most of the story. Her mother reported that when the patient was 16 years old, in 2013, she became more concerned about her appearance, wanting to lose weight. In that year, she took a walk of three hours and since that day, she reported never being the same again, with a marked change in her functioning. She said that her body was permanently damaged, feeling a constant pain in her bones. Began isolating herself, diminishing her speech and became afraid of being alone, saying that people would harm her. She complained about being fat and ugly and had suicidal ideation. She presented a discourse about seeing angels in the sky, saying that she was also an angel. A general physician performed a clinical exam and blood tests, with no alterations. In 2014, she started a severe food deprivation and lost 11kg (24lb) in one month, weighing 48kg (105.8lb), reaching a BMI of 17kg/m2, and completely stopped eating for five days. Then, her mother led her to a psychiatrist, when she was diagnosed with AN but she soon abandoned treatment. Since the disorder was not improving, in August 2019, her mother brought her to the psychiatrist again and she was medicated with Fluvoxamine 150mg/day and Risperidone 1mg/day, with a discreet general improvement. Even...
so, she shaved her head, alleging that having hair was toilsome and started using a wig, ceased doing nail-care and using make-up. She denied feeling sad, just did not feel like doing anything. She was then referred to our Eating Disorders outpatient unit.

**Clinical findings**

BMI: 20.7kg/m²; Height: 1.68m (5.5ft); Weight: 58.6kg (129lb)

**No physical alterations**

Collaborative, adequate hygiene, using a shaggy wig, temporally and spatially oriented, preserved attention, adequate intelligence, hypomimia, hypobulia, disorganized and poor speech, anhedonia, flat affect, no insight.

**Diagnostic assessment**

Blood tests and clinical exams without alterations. Questionnaires: Binge Eating Scale: 9, and Eating Attitudes Test 26: 23. Figure rating scale: Current figure: 9, desired figure: 3, ideal figure: 4. After a psychiatric evaluation, the diagnosis of SCZ was given.

**Therapeutic interventions**

Risperidone titrated to 6 mg/day and discontinued Fluvoxamine. Two months later, she presented galactorrhea and Risperidone was changed to Olanzapine, with titration to 10mg/day. Neither a psychologist nor a nutritionist was available.

**Outcome**

Two weeks after reaching the dose of 6 mg/day of Risperidone, the patient reported relief in her body pain, her eating pattern got better, with fewer restrictions. Nevertheless, she became more isolated and anhedonic. She also gained 10.6kg (23lb) in three months and presented galactorrhea. The medication was changed to Olanzapine, without any additional improvement besides ceasing the galactorrhea.

New blood tests were performed a month later, without any altered results, including thyroxine, thyroid-stimulating hormone, and prolactin measurements.

In December 2019, the EAT-26 and BES were applied again, scoring 28 and 1 respectively.

**Discussion**

Our patient manifested a singular onset of SCZ with several AN features. This presentation raises questions about a psychopathology relationship between SCZ and AN, as in other studies [5]. She exhibited both disorders symptoms emerging concomitantly, although she didn’t have enough criteria for AN diagnostic at the present moment.

Usually, both AN and SCZ individuals present similar incidences of poor insight, neurocognitive deficits, overvalued ideas and body image distortions [7]. Thus, acute symptom presentation may be insufficient to differentiate these disorders, and a longitudinal assessment could be required to a precise diagnosis.

The case reported presented improvements in positive symptoms, although she got worse of some negative symptoms after the treatment. We hypothesize if these results could be a consequence of the natural evolution of the SCZ, or even a marker of poor prognosis, once it affects the way the patient interacts with the world, including food.

We also discuss the possibility of AN features being SCZ positive symptoms in some cases. This would also reinforce why patients with premorbid eating disorders demonstrated more severe psychotic and disorganized symptoms [4].

We propose that these aspects should be evaluated in a longitudinal study with patients diagnosed with SCZ and a control group.

**References**