Risperidone is one of the atypical antipsychotic medications prescribed for the treatment of schizophrenia. A well-known side effect associated with risperidone is the elevation of prolactin levels. This elevation occurs because risperidone antagonizes D2 receptors on lactotroph cells of the anterior pituitary gland, which serves a main inhibitory role in prolactin secretion. Risperidone causes higher levels of prolactin elevation compared to other atypical antipsychotics.

Hyperprolactinemia may suppress the gonadotropin-releasing hormone, leading to a wide range of clinical symptoms. These include gynecomastia, galactorrhea, menstrual irregularities (amenorrhea or oligomenorrhea), galactorrhea, sexual dysfunction (decreased libido, impaired arousal, impaired orgasm), and acne and hirsutism in women. Long-term gonadal suppression can lead to important health consequences such as decreased bone mineral density, osteoporosis, and possibly an increased risk of breast cancer. Thus, it is very important to monitor these symptoms. In this case presentation, we describe a patient taking risperidone long-term who decided to continue with the initial stabilizing dosages despite having both elevated prolactin levels as well as asymptomatic hyperprolactinemia.

CASE PRESENTATION

A 32-year-old woman was admitted to the inpatient psychiatric unit with a 1-week history of suicidal thoughts and auditory hallucinations because she was not taking her medication. She had a known diagnosis of schizophrenia and had tried multiple antipsychotic medications in the past; risperidone had worked best for her.

During admission in-take, the patient reported that she was homeless and accidentally left her medications “in a friend’s car.” From the time she had lost her medications, the patient said she began to hear voices. She mentioned suicidal thoughts that were going on for a week, and was planning to walk in front of a car at the instruction of a voice who told her to do so. She had also been drinking alcohol. Before coming to the hospital, she had consumed “some wine to self-medicate.” She denied tobacco or illicit substance use. Her urine drug screening was negative, and her blood alcohol level was 176 upon admission. The results of all routine laboratory tests, including complete blood count, complete metabolic profile, thyroid-stimulating hormone, beta-human chorionic gonadotropin, and vitals, were normal. Continued on page 164
We started the alcohol detox process with 2 mg of lorazepam every 6 hours orally, decreased to 1 mg three times daily, and finally to 0.5 mg two times daily over a period of 4 days. We also added 1 mg of folic acid and 100 mg of thiamine daily. She tolerated the detox well and her vitals were stable throughout. She reported no withdrawal symptoms. We also restarted her risperidone at 2 mg twice daily—the same dosage at which she was stabilized in the past. The patient tolerated these medications well and thought that they helped decrease the hallucinations. She also reported that she was no longer hearing voices.

However, her prolactin level was high (109.42 ng/mL; normal is 20 ng/mL for men and 10-25 ng/mL for women)2 after she was re-started on risperidone, but the patient had not previously reported any clinical symptoms of hyperprolactinemia. She denied any discharge from the breast, irregular menstruation, abnormal hair growth, acne, or any other symptom related to hyperprolactinemia. We discussed possible reduction in the dose of risperidone, but she was not open to changing it because she was comfortable with the current dosage. Further, the patient reported that in the past when the dosages of risperidone were reduced she had increased hallucinations and felt the need to self-medicate with alcohol. We decided to discharge her on the current dosages with a follow-up with an outpatient psychiatrist.

**DISCUSSION**

It is important to monitor for the symptoms of hyperprolactinemia, including discharge from the breasts, hirsutism, acne, sexual dysfunction, irregular menstrual bleeding, and gynecomastia. If the patient is asymptomatic and stable on the current dosages it is not imminently necessary to decrease the dose of risperidone; however, continued monitoring for symptoms during each follow-up visit is recommended. This will help to avoid unnecessary dosage adjustments that may increase stress on the patient and lead to relapse of psychotic symptoms. If the patient is symptomatic on follow-up with compressive symptoms including headache, vision problems, or visual deficits, magnetic resonance imaging is recommended. Usually compressive symptoms due to prolactinomas and prolactin-secreting pituitary adenomas occur at prolactin levels of more than 200 mcg/L (200 ng/mL).4

A recent study showed that aripiprazole, in low-to-moderate dosages, if used in adjunct to risperidone can decrease prolactin level and associated gynecomastia caused by chronic use of risperidone.5 We recommend discussing with the patient the effects of risperidone on prolactin levels, and carefully monitoring for symptoms of hyperprolactinemia. Treatment of symptoms and not laboratory values should be the goal.

**REFERENCES**


