The Challenges of Clinical Psychopharmacological Management

ABSTRACT
Collaboration among health care providers in the treatment of mental health patients with comorbid medical and neurological conditions can be very challenging, especially with pharmacotherapy management where medications are prescribed by multiple providers. An individual example of a patient with a number of comorbid conditions taking multiple concurrent medical and psychotropic medications is described to highlight how challenging such situations can be. Medical conditions or medical medications might trigger or exacerbate symptoms of mental disorders. Psychotropic drugs may cause adverse effects that come to the attention of medical providers. Accurate communication among providers—and between the patient and providers—is important to avoid misinformation or misunderstandings in the care of patients with complicated problems.

Because of the presence of comorbid medical or neurological conditions and the concurrent use of various medications, prescribing and managing psychotropic drugs in collaboration with other health care providers can be very challenging for the care of some patients. In this article, I will describe a recent patient I encountered to highlight how challenging this can be.

Robert H. Howland, MD
of galactorrhea (breast milk production). Dr. Endo saw D.D. on January 26, 2012, and sent her letter on February 8. Dr. Endo noted that D.D. had been taking risperidone (Risperdal®) since September 2011 “for depression” and that D.D. told her that she started to notice the breast milk production after she started taking risperidone. D.D. told Dr. Endo that her menses were still regular. D.D. apparently also had a magnetic resonance imaging (MRI) scan of the brain in September 2011, which revealed a normal pituitary gland. Dr. Endo reviewed these MRI scan images and stated there was no evidence of any pituitary adenoma at that time. Dr. Endo then noted that a second MRI scan of the pituitary gland was obtained in December 2011 at a different hospital, and the final report from this scan revealed a small hypodense area that may represent a microadenoma. Dr. Endo reviewed various laboratory studies obtained at both hospitals, but it is notable that prolactin levels had never been obtained.

According to Dr. Endo’s report, D.D.’s current medical conditions included systemic lupus erythematosus (SLE), type 2 diabetes, hypertension, hypercholesterolemia, hypothyroidism, gastroesophageal reflux disease, polyneuropathy, osteoporosis, liver disease of unknown cause, obesity, and a cushingoid appearance. Dr. Endo noted that D.D. was currently taking risperidone, citalopram (Celexa®), hydroxychloroquine (Plaquenil®), mycophenolate (CellCept®), prednisone, amitriptyline (Elavil®), gabapentin (Neurontin®), alendronate (Fosamax®), levothyroxine (Synthroid®), and simvastatin (Zocor®).

Dr. Endo’s assessment was that “the most likely cause of the elevated prolactin and galactorrhea is the risperidone therapy, which is well known to elevate prolactin because of its dopamine antagonist effect.” She also stated that “I would strongly urge her psychiatrist to switch to a different drug that would not be associated with this effect, so that we could eliminate the galactorrhea.”

Dr. Endo stated that “it would be contraindicated to start a dopamine agonist drug because this could exacerbate an underlying psychiatric disorder, and also antagonize her psychiatric medication.” She then repeated her statement that “I strongly urge the psychiatrist to switch her from the risperidone to another medication.” She would obtain a prolactin level at that visit and again in 6 months to see whether the prolactin level changes when the drug is switched. Dr. Endo’s final comments pertained to the potential effect of prednisone on obesity, diabetes, and D.D.’s cushingoid appearance, and the management of D.D.’s diabetes and hypothyroidism. She did not comment on further evaluation of the possible pituitary microadenoma.

MY INVOLVEMENT IN D.D.’S CARE
I first met D.D. when she was brought to the community mental health clinic by her family on September 7, 2011. She was depressed but was mostly experiencing prominent symptoms of psychosis (paranoia and auditory hallucinations). I recommended starting risperidone, which both D.D. and her family agreed to, but they did not fill the prescription. D.D. was admitted to a psychiatric hospital 2 days later. When I saw D.D. again on October 19, 2011 (10 days after her discharge from the hospital), she was doing much better clinically, without depression or psychosis. She told me that she was taking only risperidone (not citalopram) and was tolerating it very well. She did not report galactorrhea at that time.

At D.D.’s subsequent visit with me on January 7, 2012, she first reported the symptom of galactorrhea without any menstrual cycle changes. She described the galactorrhea to me as a tolerable nuisance. We discussed four options: (a) reducing the risperidone dosage, (b) switching to an alternative drug, (c) adding a dopamine agonist drug, or (d) watching and waiting. After discussing all of the relevant risk-versus-benefit issues related to each option, D.D. preferred to watch and wait until her next visit with me in April 2012. At the end of January and the beginning of February, however, the mental health clinic nurse received several distressed telephone calls from D.D., who insisted that her risperidone should be changed immediately.

MY RESPONSE TO THE ENDOCRINOLOGIST
After I received the February 8 letter from Dr. Endo, and in light of D.D.’s distressed calls to the clinic, I sent a follow-up letter to Dr. Endo with copies to Dr. PCP and to D.D.’s neurologist, Dr. Neuro. I explained that D.D. was taking risperidone for a severe psychotic disorder, not depression, and that I was not aware that D.D. was taking citalopram. If D.D. was taking citalopram, then she was receiving prescriptions for it from another physician. She had not received prescriptions for citalopram from me or from the community mental health clinic. This is potentially relevant, because serotonin reuptake inhibitor antidepressant drugs, including citalopram,
have been associated with parkinsonian side effects as well as elevated prolactin levels and galactorrhea (Howland, 2007).

I further explained that dopamine agonist drugs are not contraindicated in patients with underlying psychiatric disorders, nor do they necessarily antagonize the therapeutic mechanism of action of antipsychotic drugs. They have been used to treat the parkinsonian side effects of antipsychotic drugs and to lower antipsychotic drug-related elevated prolactin levels when it causes galactorrhea or disruption of regular menses (Ishitobi, Kosaka, Shukunami, Murata, & Wada, 2011; Yuan et al., 2008). Dopamine agonist drugs also have been shown to be effective (and safe) as primary or as adjunctive treatments for psychiatric disorders and mood disorders (Esfahani & Hamidi, 2002; Howland, 2012; Kelleher et al., 2011).

I agreed with Dr. Endo that risperidone can cause hyperprolactinemia and galactorrhea. However, switching a patient from risperidone to another antipsychotic drug is easier said than done. Although some alternative antipsychotic drugs might be less apt to cause elevated prolactin, no antipsychotic drug is entirely devoid of this effect, and there is no certainty that D.D. would have a lower prolactin level with an alternative antipsychotic drug. In addition, alternative drugs are associated with other potential adverse effects, and some of these effects (e.g., weight gain, glucose and lipid dysregulation) might not be appropriate for D.D. in the context of her comorbid medical conditions. Moreover, antipsychotic drugs are not interchangeable, and an alternative might not be as effective for D.D. A decision to switch drugs in a patient with complicated problems such as D.D. should be done only after carefully considering the magnitude and clinical significance of the adverse effect (galactorrhea in this case) and the expected risks versus benefits of a switch. According to other records from her hospitalization, D.D. had been depressed and psychotic during the summer and fall of 2011 and was only treated with the antidepressant citalopram by Dr. PCP. Her current stability with appropriate antipsychotic drug therapy could be jeopardized by switching antipsychotic drugs. I explained that when I last met with D.D. on January 7, 2012 (before her visit with Dr. Endo), I had reviewed and discussed these various risk-benefit issues with D.D.

I pointed out to Dr. Endo that her report did not mention how troublesome the symptom of galactorrhea was to D.D., but that since her endocrinology visit, D.D. has called the clinic several times in a mildly distressed state, insisting that she wanted to change risperidone immediately. I wondered how Dr. Endo’s “strong” recommendation to me (as stated in her report) to change the risperidone was conveyed to D.D. during that visit and how D.D. might have perceived Dr. Endo’s level of concern about the use of risperidone.

Finally, I asked why there seemed to be an inordinate degree of concern in Dr. Endo’s report about risperidone and galactorrhea in this patient. Dr. Endo mentioned a possible small pituitary microadenoma, which can abnormally secrete prolactin, but she did not discuss her assessment of the potential clinical significance of this finding or any recommendation for follow-up evaluation or treatment. In the context of D.D.’s overall clinical picture (especially her psychotic disorder, obesity, cushingoid appearance, diabetes, and osteoporosis), the use of prednisone, hydroxychloroquine, and mycophenolate would, for example, seem to warrant a similar degree of strong concern to the prescribing physicians. Mycophenolate, a nonsteroid immunosuppressant drug used off label for SLE, is associated with insomnia, anxiety, hypertension, hypercholesterolemia, hyperglycemia, hypocalcemia, and paresthesia (Roche, 2009). Hydroxychloroquine, an antimalarial drug used to treat lupus, and prednisone, an immunosuppressant steroid drug, have each been associated with triggering or exacerbating psychiatric symptoms (including psychosis) (Fardet, Petersen, & Nazareth, 2012; Hsu, Chiu, & Huang, 2011). It is not clear that these potential adverse effects were discussed with D.D. or the prescribers.

I explained that I would meet with D.D. again to discuss these issues and thanked Dr. Endo for her collaboration in the overall treatment of our mutual patient.

MY MOST RECENT VISIT WITH D.D.

When I last saw D.D. in April 2012, she was still doing very well. The galactorrhea was present only several days per week, and she was having heavy but regular menses. She admitted that her visit with Dr. Endo made her anxious and worried about the problem, but she was no longer distressed. She also told me that she was taken off the prednisone and was pleased that she had lost weight. We again discussed the four treatment options for risperidone, and D.D. preferred to watch and wait. I encouraged her follow up with Drs. PCP, Endo, and Neuro.

CONCLUSION

Collaborating with other health care providers in the treatment of mental health patients with comorbid medical conditions can be very challenging, especially with pharmacotherapy management where medications are prescribed by multiple providers. Comorbid conditions or concurrent medications might trigger or exacerbate symptoms of mental disorders. Psychotropic drugs may cause adverse effects that come to the attention of medical providers. Accurate communication among providers—and between the patient and providers—is critically important to avoid misinformation or misunderstandings. Communication could
involve telephone conference calls or even video conferencing if available, although written communication can become part of a patient’s medical record. Nurses have an important role in this collaborative process. With experience, nurses working in mental health should develop a working knowledge about the potential adverse psychiatric effects of nonpsychotropic drugs, as well as the potential effects of psychotropic drugs that might concern other medical providers.

REFERENCES


Dr. Howland is Associate Professor of Psychiatry, University of Pittsburgh School of Medicine, Western Psychiatric Institute and Clinic, Pittsburgh, Pennsylvania.

The author has disclosed no potential conflicts of interest, financial or otherwise.

Address correspondence to Robert H. Howland, MD, Associate Professor of Psychiatry, University of Pittsburgh School of Medicine, Western Psychiatric Institute and Clinic, 3811 O’Hara Street, Pittsburgh, PA 15213; e-mail: HowlandRH@upmc.edu.

*Posted: April 25, 2012*

doi:10.3928/02793695-20120410-99