

placed with prn zopiclone (3.75 mg qhs prn [maximum: 7.5 mg/day]) for sleep, and all other medications were stopped. On follow-up the next day, the patient showed increased delusional content and expansive mood. The olanzapine dosage was increased to 5 mg po qA.M. and 7.5 mg qhs. Two days later, olanzapine was again increased, to 5 mg qA.M. and 10 mg qhs. Initial clinical improvement in behavior was noted by the psychiatry department by Postoperative Day 12. The patient did well thereafter, and his condition continued to improve gradually.

By Postoperative Day 15, psychiatric evaluation described him as alert and oriented, with no delusions or persisting hostility, and with insight into his previous mental disturbance. He was discharged from the hospital with a short-term prescription for olanzapine po. The discharge diagnosis was "medication-induced manic episode," which may or may not have been a part of a bipolar affective disorder, type 1.

Discussion

New-onset mania or psychosis in adult patients with no previous history of mental illness should prompt a clinician to search for reversible causes. Our patient had no previous psychiatric history, nor signs of infection, encephalitis, metabolic abnormalities, acute organic condition, or other factors, such as substance-abuse or drug interactions that might account for the acute onset of his temporary mania and his subsequent recovery.

There was a clear relationship between the onset of psychiatric symptoms and ciprofloxacin treatment, and initial signs of gradual recovery occurred 6 days after ciprofloxacin was discontinued. Absent a re-challenge with ciprofloxacin, the temporal relationship between the patient's cipro-

floxacin use and the onset and resolution of his mania strongly suggests a causal relationship.

There have been previous reports of psychosis induced by ciprofloxacin, as well as delirium induced by other fluoroquinolones.¹⁻³ A recent review of cases of mania caused by antibiotics suggested that reports of mania are increasing with the introduction of newer antibiotics and the heightened frequency with which they are prescribed.⁴ This is the first report suggesting that mania may persist after discontinuation of the antibiotic and that this can be treated with an atypical neuroleptic.

Most cases previously reported responded quickly to discontinuation of the offending agent, and it seemed that they did not require neuroleptic treatment. In more complicated or persistent presentations such as Mr. M's, however, we believe that augmentation with atypical neuroleptics and close follow-up may be an important second-line therapy.

Shree Bhalerao, P.G.D., M.D.,
FRCPC

Univ. of Toronto School of Medicine

Aaron Talsky, B.Sc.

Keith Hansen, N.P.

Edward Kingstone, M.D.

Ben Schroeder, B.Sc.

Zamil Karim, B.Sc.

Irene Fung, B.Sc.

Toronto, ON Canada

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Ethical Impasses in the Care of Patients With Hepatitis C

TO THE EDITOR: The report by Geppert et al. (*Psychosomatics* 2005; 46:392-401) represents an initial step toward tackling the immense ethical dilemmas facing clinicians caring for the 4 million Americans with hepatitis C virus (HCV) infection.¹ Two paramount issues, however, were largely unaddressed in this report; the first involves the role of an individualized, multidisciplinary risk-benefit assessment of patients being evaluated for HCV treatment.² The second issue is the absence of consensus about when HCV treatments can or should be either withheld or delayed.³

Patients evaluated by Geppert et al.¹ felt devastated by HCV infection and feared death, mostly from liver cirrhosis and hepatocellular carcinoma, and both diseases have significantly increased in incidence in the last decade.⁴ Yet, despite two decades of research on the usefulness of interferon- α -based therapies in achieving viral clearance of HCV, the U.S. Preventive Services Task Force recently found no data to support the efficacy of HCV treatments in reducing morbidity and mortality from HCV infection.⁵

Nonetheless, clinicians rely on consensus guidelines to navigate through a multitude of cumulative and prognostic factors (HCV genotype, HCV RNA viral load, race, gender, age, body mass index, etc.) and incorporate results from liver pathology and the course of HCV-induced liver disease to formulate individualized treatment recommendations for their patients.^{6,7} Expecting that patients will fully grasp and comprehend the complexities of HCV infection and understand that the intuitive value of its treatment, as just and moral as it may seem

ethically, may be impractical and unattainable, especially in the case of patients with HCV and comorbid psychiatric illness. In fact, the patient educational material available from the Department of Veterans Affairs Hepatitis C Resource Centers website (www.hepatitis.va.gov) provides patients with general information about HCV infection and treatment issues; however, it calls for a discussion between patients and their providers about available treatment options, as well as the value of non-treatment and watchful waiting.

The efforts to obtain full and informed consent for HCV treatment is a laudable cause, but it is complicated when there is comorbid psychiatric illness.⁸ The cognitive effects of HCV infection, coupled with comorbid psychiatric illness and interferon- α -induced neuropsychiatric adverse effects necessitates the participation of psychiatrists to act as advocates for their patients' best interests.⁹ The participation of a psychiatrist provides safeguards to protect patients from the medical and psychiatric adverse effects associated with HCV treatments, treatments that so far have no proven efficacy in reducing morbidity or mortality from HCV infection. A dynamic dialogue between hepatologists, psychiatrists, other medical and psychosocial support personnel, as well as the patient and his or her proxy, will result in a true multidisciplinary formulation and a realistic risk-benefit assessment that is guided by the patient's treatment inclinations.¹⁰

Such an evaluation process would incorporate predictors of viral clearance, the likelihood of interferon- α -in-

duced neuropsychiatric adverse effects, availability of psychosocial resources, and the patient's treatment preferences, and this process would be superior to the evaluation process described by Geppert et al.,¹ in which mental health professionals merely gave a "clearance for HCV treatment."^{1,3}

The absence of a consensus about when to recommend delaying HCV treatment because of the low likelihood of viral clearance, the high likelihood of neuropsychiatric adverse effects, or absent psychosocial support resources adds to the monumental undertaking of clinicians caring for patients with HCV infection as these clinicians struggle on a daily basis with providing treatment recommendations for their patients. For example, should HCV treatments be delayed or withheld if the likelihood of viral clearance is 30%? How about 15%? Should treatment be delayed or withheld if there is a high likelihood of neuropsychiatric adverse effects with HCV treatment (e.g., mania or psychosis that was associated with a previous course of interferon- α treatment)? What about the patient who has advancing cirrhosis and may progress to end-stage liver disease and requires a liver transplant if he or she is not treated?

The introduction of newer HCV treatment modalities (e.g., HCV protease inhibitors), which are likely to yield an increased likelihood of viral clearance (i.e., >55%), may, we would hope, allay some of these ethical concerns. The improved viral clearance rates would also strengthen the case for providing HCV treatment to patients with psychiatric illness and may encourage clinicians to engage these patients in HCV treatment.

Muhamad Aly Rifai, M.D.
Portland Veterans Affairs Medical
Center, Northwest Hepatitis C
Resource Center, Portland, OR

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