

Psychopharmacology for the Clinician

The information in this column is not intended as a definitive treatment strategy but as a suggested approach for clinicians treating patients with similar histories. Individual cases may vary and should be evaluated carefully before treatment is provided. The patient described in this column is a composite with characteristics of several real patients.

Discontinuation of lithium because of side effects

Patient AB had her first episode of depression at age 18 when leaving home to attend university. Numerous periods of elevated mood, increased activity, racing thoughts, rapid speech and distractibility followed, each lasting about a week. However, she was able to complete her university degree. At age 26, following the birth of her first child, she had a 2-month episode of depression with low mood, tearfulness, guilt, hopelessness, loss of interest and pleasure, low energy, impaired concentration and insomnia. She started seeing a psychiatrist at age 32 for her third depressive episode, which was associated with thoughts of death and panic attacks. The episode resolved without medication. Following the birth of her third child, AB experienced another depression. Her psychiatrist prescribed lithium (Li), and her condition improved within 2 weeks. She continued Li for the next 21 years, with her levels always within the therapeutic range. During this time the family moved to another province, and AB successfully pursued her career as a music teacher and raised her family. She felt stable except for a week of low mood followed by a few weeks of lower energy, not requiring any medication change. At age 56, one of AB's routine laboratory tests revealed increased serum creatinine (111 µmol/L). Her family physician asked her to gradually discontinue Li. Almost a year later she became less stable, and the family physician started her on topiramate. Family members noticed that she was quieter and somewhat withdrawn. At age 57 she died by suicide.

The decision to discontinue Li needs to carefully balance the benefit of Li treatment against the severity of side effects and the probability that they are caused by Li. Assessing the Li response in a particular patient requires gauging the symptomatic and prophylactic benefits achieved while on Li against the possibility that Li did not contribute to these effects. For example, an improvement despite poor compliance, low serum levels or short duration of Li treatment may not be attributable to Li. Lack of episodes while on Li in a patient who even before treatment had a slowly cycling illness or only a single episode makes response to Li questionable or difficult to judge. Similarly, previous breakthrough episodes while on a sufficient and carefully monitored Li prophylaxis or a need for polypharmacy during Li treatment may indicate limited response to Li. AB had a recurrent illness with 4 major depressive and a number of hypomanic episodes before the initiation of Li treatment. She experienced no mood episodes during the 21 years of compliance with Li monotherapy, which argues for an excellent response to Li rather than a spontaneous resolution of illness. This was also supported by the recurrence following gradual discontinuation of Li.

Especially in an excellent Li responder, it becomes critical to determine the "cost" of continuing the Li prophylaxis. The mildly elevated serum creatinine may or may not have been related to the Li treatment. Information, such as baseline creatinine, fluid and electrolyte balance, medical history regarding kidney function, diabetes, hypertension or extended use of analgesics would be use-

ful. Even if AB's creatinine elevation was due to Li, perhaps it could have been managed with changes in the dosage or dosing regimen.¹

It is unclear whether a switch to a medication with proven mood stabilizing properties, rather than to topiramate, would have yielded a different outcome for AB. Excellent Li responders are unlikely to derive the same benefit from a different mood stabilizer.^{2,3} Stopping previously effective Li prophylaxis often results in recurrences of illness⁴ as well as suicide,⁵ even after an extended episode-free interval and with gradual tapering of Li. Thus, discontinuing a medication that has proven highly beneficial always requires close monitoring and potentially switching back in case of a recurrence on a new medication. In addition, Li is the only mood stabilizer with well-proven antisuicidal properties,^{6,7} which may be independent of effects on mood symptoms.⁸

Overreacting to potential adverse effects by discontinuing a previously effective treatment may be more fatal than the adverse effects themselves. This is not to say that Li should never be discontinued; however, the decision requires a thorough clinical assessment and a careful consideration of the lifetime course of illness, treatment response, medication and medical history.

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Psychopharmacology for the Clinician columns are usually based on a case report that illustrates a point of interest in clinical psychopharmacology. They are about 500–650 words long and do not include references. Columns can include a bibliography which will be available only on the journal website and can be accessed through a link at the bottom of the column.

Please submit appropriate columns online at <http://mc.manuscriptcentral.com/jpn>; inquiries may be directed to jpn@cma.ca.

Competing interests: None declared.

References

1. Luby ED, Singareddy RK. Long-term therapy with lithium in a private practice clinic: a naturalistic study. *Bipolar Disord* 2003;5:62-8.
2. Gershon S, Chengappa KN, Malhi GS. Lithium specificity in bipolar illness: a classic agent for the classic disorder. *Bipolar Disord* 2009;11(Suppl 2):34-44.
3. Grof P, Duffy A, Alda M, et al. Lithium response across generations. *Acta Psychiatr Scand* 2009;120:378-85.
4. Baldessarini RJ, Tondo L. Recurrence risk in bipolar manic-depressive disorders after discontinuing lithium maintenance treatment: an overview. *Clin Drug Investig* 1998;15:337-51.
5. Baldessarini RJ, Tondo L, Hennen J. Effects of lithium treatment and its discontinuation on suicidal behavior in bipolar manic-depressive disorders. *J Clin Psychiatry* 1999;60(Suppl 2):77-84.
6. Baldessarini RJ, Tondo L, Davis P, et al. Decreased risk of suicides and attempts during long-term lithium treatment: a meta-analytic review. *Bipolar Disord* 2006; 8:625-39.
7. Lauterbach E, Felber W, Muller-Oerlinghausen B, et al. Adjunctive lithium treatment in the prevention of suicidal behaviour in depressive disorders: a randomised, placebo-controlled, 1-year trial. *Acta Psychiatr Scand* 2008;118:469-79.
8. Ahrens B, Muller-Oerlinghausen B. Does lithium exert an independent anti-suicidal effect? *Pharmacopsychiatry* 2001; 34:132-6.

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