

## Treatment of Diarrhea-Predominant Irritable Bowel Syndrome With Paroxetine

**Sir:** Irritable bowel syndrome (IBS) is a chronic gastrointestinal disorder. The disorder is characterized by chronic abdominal pain and altered bowel habits in the absence of any organic disorder. Treatment of IBS includes dietary modification, psychotherapies, and medications. Among medications, antidepressants may be beneficial in IBS.<sup>1</sup> We report a case in which symptoms of diarrhea-predominant IBS improved with low-dose paroxetine, a widely used antidepressant.

**Case report.** Mr. A, a 43-year-old man, presented to a gastroenterologist in August 2001 complaining of frequent diarrhea and chronic abdominal pain. These symptoms, present for 3 months, had intensified during the previous month with increased stress. There were no abnormal findings on a physical examination or gastrointestinal endoscopy. He was diagnosed as having IBS. Treatment for 5 months with trimebutine maleate, 300 mg/day, and loperamide, 2 mg/day, was not beneficial. Then, he was referred to our department of psychiatry.

At a psychiatric evaluation, Mr. A reported feeling stress on the job and had mild obsessional thinking that stress must cause diarrhea and eating must exacerbate diarrhea. He did not meet DSM-IV criteria for major depressive disorder or obsessive-compulsive disorder. Supportive psychotherapy was initiated, and paroxetine, 10 mg/day, was added for 1 week and then increased to 20 mg/day. After 3 weeks of treatment at 20 mg/day, his IBS symptoms disappeared and trimebutine maleate and loperamide were discontinued. For the next year, he experienced no IBS symptoms. Paroxetine treatment was then reduced to 10 mg/day and discontinued after 6 months at this dose. Psychotherapy alone has controlled his IBS symptoms for the past year.

This case represents a patient with diarrhea-predominant IBS and mild obsessional thinking. Although treatment with trimebutine maleate and loperamide did not lead to improvement in clinical symptoms, the patient's IBS symptoms disappeared with paroxetine treatment. Paroxetine, a widely used selective serotonin reuptake inhibitor (SSRI), is effective in treating depressive disorders and anxiety disorders, including obsessive-compulsive disorder.

A number of randomized controlled trials have demonstrated decreased symptoms in IBS patients taking low-dose tricyclic antidepressants (TCAs). SSRIs may be useful when IBS is accompanied and exacerbated by a mood disorder, but evidence to support their use is lacking.<sup>2</sup> The efficacy of SSRIs in patients with IBS has been documented in case reports<sup>3</sup> and a pilot open-label study,<sup>4</sup> but not in controlled studies.<sup>5</sup>

The mechanism of action of SSRIs for IBS is not known but may relate to its effects on the central nervous system and the enteric nervous system.<sup>5</sup> Low-dose SSRI treatment might be effective for mild obsessional thinking that does not fulfill DSM-IV diagnostic criteria for obsessive-compulsive disorder. Moreover, the anticholinergic effects of paroxetine are milder than those of TCAs, and paroxetine may improve diarrhea and other symptoms of IBS adequately.

Patients with IBS often have obsessional thinking about IBS symptoms. Therefore, SSRIs might have efficacy for

IBS even without a diagnosable mental disorder. If IBS symptoms are improved with SSRI treatment in diarrhea-predominant IBS, psychotherapy may be helpful in maintaining improvement. As a result, IBS symptoms may be controlled without medication. This suggests that an SSRI, such as paroxetine, administered in a low dose might be a key drug in early treatment for IBS.

*Drs. Kato and Misawa report no financial or other relationship relevant to the subject of this letter.*

## REFERENCES

1. Jailwala J, Imperiale TF, Kroenke K. Pharmacologic treatment of the irritable bowel syndrome: a systematic review of randomized, controlled trials. *Ann Intern Med* 2000;133:136-147
2. Mertz HR. Irritable bowel syndrome. *N Engl J Med* 2003;349:2136-2146
3. Kirsch MA, Louie AK. Paroxetine and irritable bowel syndrome. *Am J Psychiatry* 2000;157:1523-1524
4. Masand PS, Gupta S, Schwartz TL, et al. Paroxetine in patients with irritable bowel syndrome: a pilot open-label study. *Prim Care Companion J Clin Psychiatry* 2002;4:12-16
5. Tabas G, Beaves M, Wang J, et al. Paroxetine to treat irritable bowel syndrome not responding to high-fiber diet: a double-blind, placebo-controlled trial. *Am J Gastroenterol* 2004;99:914-920

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## Propranolol Treatment for Neuroleptic-Induced Akathisia

**Sir:** Akathisia, or motor restlessness, is a common and distressing side effect of antipsychotic or neuroleptic drug therapy. In extreme cases, akathisia could be mistaken for agitated psychosis, leading to an increase in the dose of the antipsychotic drug, which could further worsen the restlessness.<sup>1</sup> Propranolol is a nonselective  $\beta$ -adrenergic blocker with no other autonomic nervous system activity. It is primarily and widely used as an antihypertensive agent, either alone or in combination with other antihypertensive medications. Here, we present a case of improvement of neuroleptic-induced akathisia with propranolol.

**Case report.** Ms. A, a 46-year-old white woman, had a 20-year history of bipolar disorder, mixed type, diagnosed using the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV) criteria.<sup>2</sup> She had a history of multiple psychiatric hospitalizations, and her last hospitalization was in January 2004. She had no history of comorbid substance use disorder. Her medical history was significant for hypothyroidism, which has been well controlled with levothyroxine, 88  $\mu$ g once a day, and acne grade 1 for which she has been taking tetracycline, 250 mg twice a day. Ms. A's initial presentation to our practice was in January 2004, at which time she was taking risperidone, 2 mg p.o. q.h.s., and carbamazepine, 200 mg p.o. q.a.m. and 400 mg p.o. q.h.s. At the time of her discharge from the hospital in February 2004, she was taking risperidone,

2 mg p.o. q.a.m., and lamotrigine, 50 mg p.o. b.i.d., as well as lorazepam, 0.5 mg at bedtime, as needed for insomnia.

During the course of her outpatient treatment, she started to develop extreme paranoid ideations. In July 2004, risperidone was tapered in tandem with initiation of treatment with olanzapine, 2.5 mg at bedtime, with the dose gradually increased to 10 mg at bedtime by December 2004. Within a week of the titration of the dose of olanzapine to 10 mg/day, she began to complain of restlessness. A diagnosis of akathisia was made based on the patient's subjective report of restlessness as well as the physician's objective assessment. Since no other medication changes had been made and since the patient denied any other symptoms of anxiety, the akathisia was attributed to an increase in the dose of olanzapine. A low dose of propranolol (10 mg twice a day) was initiated for managing the akathisia. Symptomatic improvement in akathisia was noticed within 2 days of initiation of propranolol. She reported no adverse effects from the use of propranolol.

Motor restlessness has been proposed as the possible result of an imbalance between the central dopaminergic and  $\beta_2$ -adrenergic systems. The improvement in akathisia from propranolol could thus be due to the  $\beta_2$  blocking property of propranolol.<sup>3</sup> A blinded study has shown propranolol to be more efficacious than lorazepam in neuroleptic-induced akathisia.<sup>3</sup> Furthermore, the low doses of propranolol used to treat akathisia do not significantly affect blood pressure.<sup>3</sup> Presently, there is no definitive treatment of akathisia. Some other alternatives to propranolol in the treatment of akathisia include anticholinergic medications,<sup>4</sup> benzodiazepines, or a reduction in the dose of neuroleptics.

Propranolol could be a safe and efficacious treatment for neuroleptic-induced akathisia. However, studies representing larger patient populations and other neuroleptic medications are needed to corroborate these findings.

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#### REFERENCES

1. Chandler JD. Propranolol treatment of akathisia in Tourette's syndrome. *J Am Acad Child Adolesc Psychiatry* 1990;29:475-477
2. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*. Washington, DC: American Psychiatric Association; 1994
3. Adler L, Angrist B, Peselow E, et al. Efficacy of propranolol in neuroleptic-induced akathisia. *J Clin Psychopharmacol* 1985;5:164-166
4. Van Putten T, Mutalipassi LR, Malkin MD. Phenothiazine-induced decompensation. *Arch Gen Psychiatry* 1974;30:102-105

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