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MISUSE OF LOPERAMIDE IN ANXIETY DISORDER PATIENTS

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Anxiety disorders including conditions such as panic disorder, phobias (agoraphobia, social, and simple), and obsessive-compulsive disorder are among the most prevalent psychiatric conditions in the United States with rates ranging from 6.6 to 24.9% (Regier et al., 1990; Kessler et al., 1994). Despite their prevalence and often deleterious effect on social functioning, these conditions are underdiagnosed and untreated (Fifer et al., 1994; Myers et al., 1984; Markowitz et al., 1989).

Comorbid alcohol and substance abuse are common among patients with anxiety disorders, and are often an additional obstacle to effective treatment (Kushner et al., 1990). While much attention has been focused on the abuse of illicit substances in the course of anxiety disorders, few have sought to examine the use of other agents such as the over-the-counter medication loperamide. Loperamide is a safe and effective drug for the management of diarrhea, and has been available since 1977 in the United States (Hill and Greason, 1992).

This report details three cases of patients with anxiety disorders who misused loperamide in an attempt to cope with the consequences of their illness. Brief case vignettes are presented.

CASE REPORTS

CASE 1

Mr. A was a 25-year-old man with DSM-IV defined panic disorder with agoraphobia who presented to the outpatient clinic with depression and suicidal rumination. His symptoms responded quickly to medication and supportive psychotherapy. However, Mr. A noted persistent fears about leaving his home due to the unavailability of a toilet. During a 2-year period, he had used loperamide on a regular basis, which he stated helped "to bind" him. While he reported episodes of severe constipation associated with loperamide use, he denied other complications.

Mr. A gradually improved with the use of amitriptyline, a highly anticholinergic antidepressant with frequent constipation as a side effect, which provided similar results once obtained with loperamide. As treatment progressed multiple conflicts over sexuality and assertiveness emerged which Mr. A was gradually able to examine in insight-oriented psychotherapy. He returned to work full-time, was promoted, eventually married, and resumed a satisfying sexual relationship with his wife although he required continued use of the antidepressant medication.

CASE 2

Mr. B was a 14-year-old boy with a DSM-IV diagnosis of overanxious disorder who was brought by his mother to the outpatient clinic for help with "an obsession about moving his bowels." The patient was unable to leave the house in the morning without an elaborate ritual designed to help him move his bowels. He often interrupted the first period class, and frequently needed to run to the bathroom to defecate. The boy was otherwise a well-adjusted eighth grader who was afraid that his fear of "being away from a bathroom" would prevent him from joining the track team. His mother reported that during family outings involving travel by car she would often give him loperamide prior to leaving in order to prevent the frequent bathroom stops.

At the initial interview, Mr. B described an episode which occurred in the sixth grade when he moved his bowels in his pants, and had to flee the playground in embarrassment. The patient was offered a medication trial but his parents resisted, and instead he entered into cognitive-behavioral psychotherapy. His symptoms eventually improved and loperamide use abated.

CASE 3

Mr. C was a 16-year-old man with a DSM-IV diagnosis of major depression along with an anxiety disorder not otherwise specified (NOS) with prominent obsessive and phobic features. He described first taking bismuth subsalicylate (pepto-bismol) during the eighth grade to combat episodes of anxiety-related diarrhea during school. However, Mr. C eventually switched to loperamide because of its increased efficacy. In addition, he began to use loperamide not only to control diarrhea, but also to prevent the need to defecate in school, on long trips or on outings with friends. Over time, he began to utilize loperamide solely to prevent the need to defecate in situations where a perceived lack of facilities would make him anxious (i.e., traffic, field trips, and airplanes).

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Mr. C began to use the liquid form of loperamide as directed, but eventually switched to tablets. He stated that while he began using 1–2 tablets per situation, he soon noted the development of tolerance. Mr. C started to use 3–6 tablets per situation, 1–2 times per week. At this dose, loperamide would effectively prevent defecation for up to 4 days. In situations where defecation did not spontaneously return, Mr. C utilized psyllium hydrophilic mucilloid (metamucil) and other bulk rich foods to stimulate evacuation.

Mr. C was initially treated with fluoxetine, up to 20 mg each day for 6 weeks, for depression with limited effect. However, once he switched to venlafaxine, 50 mg twice each day, he reported that the anxiety that prompted the loperamide use had ceased. He has been maintained on venlafaxine without further loperamide use.

DISCUSSION

Three cases of misuse of loperamide in patients with anxiety disorders have been presented. In each case, proper diagnosis and treatment led to the discontinuation of loperamide.

Loperamide is a phenylpiperidine derivative structurally related to diphenoxylate and haloperidol (Jaffe et al., 1980). While loperamide inhibits the binding of naloxone at the opioid receptor, it seems to lack the abuse liability of other narcotic agents when prescribed at recommended therapeutic dosages (Shriver et al., 1981). Early testing confirmed these observations and although loperamide was originally released as a schedule V medication, it is now available over the counter (OTC) in liquid and tablet forms (Hill and Greason, 1992). The Food and Drug Administration reclassified this narcotic agonist in 1988 after further consideration of safety studies, suggesting the lack of abuse potential.

A more recent literature research revealed only one clearly documented report involving loperamide abuse in a man with a previous history of narcotic and alcohol dependence (Hill and Greason, 1992). He required methadone detoxification after abruptly discontinuing loperamide, which he had abused over a 1-year period after an episode of diarrhea. An additional reference alluded to one report of loperamide use by a drug abuser in data reported to the FDA by the drug manufacturer although details were not presented (Jaffe et al., 1980).

There are additional concerns related to the long-term misuse of loperamide. Among the symptoms reported to occur during treatment with loperamide include hypersensitivity reactions (including skin rash), abdominal pain or discomfort, nausea and vomiting, constipation, tiredness, dehydration, drowsiness or dizziness, and dry mouth (Shriver et al., 1981). Mr. B offered a history of severe constipation while Mr. C seemed to develop tolerance to the effect of loperamide. In all three cases, appropriate psychiatric diagnosis and treatment led to the discontinuation of loperamide, and lowered the resultant exposure risk.

Risk factors for misuse of loperamide and other medications in patients with anxiety disorders may involve abuse of other substances although this was limited in this case series. There is an extensive literature to support the role of stress and anxiety in the expression of various gastrointestinal disorders including diarrhea (Freud, 1936; Dunbar, 1959; Lydiard et al., 1994). Therefore, an additional strategy might focus on patients with specific somatic complaints associated with the anxiety. The therapist may then ask the patient how they have addressed the symptoms prior to seeking psychiatric consultation.

Further research is needed to better elucidate the extent of loperamide misuse in patients with anxiety disorders. In all, it is recommended that clinicians, including primary care physicians, maintain a high index of suspicion, and routinely ask patients about their use of OTC medications.

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