

# Suicide Associated with Akathisia and Depot Fluphenazine Treatment

M. KATHERINE SHEAR, MD, ALLEN FRANCES, MD, AND PETER WEIDEN, MD

*Department of Psychiatry, New York Hospital/Cornell University Medical College, and the Payne Whitney Clinic, New York, New York*

**A**KATHISIA is a common and distressing side effect of neuroleptic medication that can be difficult to recognize and treat.<sup>1</sup> Several previous reports mention maladaptive behavioral consequences, such as poor compliance with prescribed medication<sup>2</sup> and aggressive or self-destructive outbursts.<sup>3,4</sup> We are reporting suicides in two young Hispanic men who had developed severe akathisia after treatment with depot fluphenazine. Depression with suicidal behavior has been observed following fluphenazine injection,<sup>1</sup> but suicide associated with akathisia has not been previously noted.

## Case Reports

### Case 1

A 23-year-old single unemployed Hispanic man had been socially withdrawn, blunted in affect, and thought disordered since his early teenage years. He was intermittently delusional with auditory hallucinations which responded to phenothiazines. He was treated in a day hospital after one of multiple hospitalizations; depot fluphenazine was used because of medication noncompliance. He received two injections of 25 mg of fluphenazine decanoate separated by 1 week, with noticeable improvement in his psychotic symptoms. He also developed akathisia and was prescribed trihexyphenidyl, 2 mg twice a day, which he probably did not take. There was no improvement in his akathisia and no anticholinergic side effects. He soon stopped attending the day hospital and a family member called 1 week later to say the man had killed himself by jumping off the roof of their building. He had given no indication of being suicidal and his family believed the increased "nervousness" had driven him to this desperate measure. The patient had no previous history of suicidal behavior and did not drink alcohol or use drugs.

### Case 2

A 36-year-old non-English speaking Hispanic man was seen once in our walk-in clinic because of severe restlessness and leg cramps. Intermittent somatic symptoms and nervousness began shortly after he arrived in the United States 8 months earlier. When the symptoms worsened, he began a series of visits to hospital emergency rooms and private psychiatrists. Three weeks before the walk-in visit a Spanish-speaking psychiatrist diagnosed paranoid schizophrenia and administered depot fluphenazine. Following this injection, the patient developed a

dystonic reaction and then began to complain continuously of leg cramps and restlessness. In the ensuing weeks he received numerous drugs from emergency room or private physicians, some given by injection and some by prescription. He brought bottles of thiothixene, chlorazepate, amitriptyline, meprobamate, and lorazepam to the clinic. He was agitated, paced, and begged for help. He denied symptoms of depression or suicidal ideation. He claimed he was devoted to his wife and 9-year-old daughter, but he felt his unbearable symptoms would never go away. He made good contact in a translated interview and showed no thought disorder, hallucinations, or delusions. Thorough medical examination was negative except for the parkinsonian symptoms. He had no prior history of psychiatric treatment and the family history was negative for depression, nervousness, and significant psychiatric or medical illness. Since the diagnosis was uncertain, plans were made to discontinue all medication and a follow-up appointment was scheduled. The next day he killed himself without warning by jumping in front of a subway train.

Akathisia is an intensely unpleasant feeling characterized by muscle discomfort, inability to sit still, continuous agitation, restlessness, and fidgety feelings. Sleep may be disturbed by an inability to lie down.<sup>5</sup> Some patients say they feel like jumping out of their skin.<sup>6,7</sup> It is of interest that both patients reported here killed themselves by jumping. Kumar<sup>8</sup> reports akathisia in a retarded man with episodes of behavioral hyperactivity where he "ran or paced from door to door, tried to climb up walls and doors, tried to reach the nearest exit and get out through windows." Forrest and Fahn's<sup>9</sup> patients complain of "a screaming inside" and their nonpsychotic patients exhibit "clinging behavior and anguished imploring of the physician to help." Van Putten<sup>10</sup> described a schizophrenic woman who banged her head against a wall and cried, "I just want to get rid of this whole body." The same author described "aggressive and self destructive behavior" in another patient and a third patient who frequently ran away from the hospital during akathitic episodes. Keckich<sup>11</sup> reports that a patient with akathisia became violent and tried to kill his dog.

The estimated incidence of akathisia with neuroleptic use ranges from 20 to 45%.<sup>2</sup> Several studies using depot fluphenazine report an incidence around 35%. Drug characteristics (such as halogen substitution or piperazine rings), drug dosage, rate of increase, drug duration, and

Address requests for reprints to: M. Katherine Shear, MD, 525 E. 68th St., New York, NY 10021.

individual patient sensitivity all influence the likelihood of development of akathisia.<sup>2</sup> Van Putten<sup>3</sup> found a 59% incidence of akinesia, parkinsonism, tremor, or dystonia in his patients with akathisia. Blum<sup>9</sup> characterized a group of patients with serious extrapyramidal side effects from depot fluphenazine. This group had a shorter course (less than 6 months), more confusion, depressive, suicidal, neurovegetative, and guilt symptoms, and less emotional blunting or incoherent thinking than a comparison low side effect group. More of the severe side effects group were married and abuse drugs or alcohol. Thus, patients who fail to meet the third edition of *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III) criteria for schizophrenia may be at higher risk for developing severe side effects from long acting neuroleptics.

Symptoms of akathisia may be more intolerable for some patients than others. Patients who already have prominent anxiety symptoms may feel medication is making them worse. Patients who are sensitive to altered bodily feelings or fearful of bodily disorder may be frightened by the peculiar uncontrollable restlessness. Hostile paranoid patients may experience loss of bodily control and a conviction that they are being poisoned or influenced negatively.<sup>7</sup> Hispanic men constitute a very small percentage of our total clinic population and it may be more than coincidence that they constitute the sample reported here.

Akathisia is a distressing symptom which may be difficult to diagnose and treat. Restlessness may be mistaken for anxiety and clinicians may err by raising neuroleptic dosage. Treatment with anticholinergic medication may be helpful, but response is variable. In one study<sup>10</sup> prophylactic anticholinergics were effective in

decreasing severity of akathisia without affecting its incidence.  $\gamma$ -Aminobutyric acid agonists (i.e., diazepam) may also be used to treat akathisia and may be used intravenously in urgent situations.<sup>3</sup> Sometimes the only effective treatment is withdrawal of the neuroleptic. Although we cannot be sure that akathisia caused the deaths of our patients, akathitic symptoms seemed to be immediate precipitants of suicidal behavior. We urge clinicians to be alert to the discomfort of akathisia and to treat it aggressively. If treatment with anticholinergics or  $\gamma$ -aminobutyric acid agonists fails or symptoms are especially severe, hospitalization may be indicated.

### References

1. American College of Neuropsychopharmacology Task Force. Neurologic syndromes associated with antipsychotic drug use. *N Engl J Med* 1973;289:20-3.
2. Van Putten T. The many faces of akathisia. *Compr Psychiatry* 1975;16:43-6.
3. Gagrut D, Hamilton J, Belmaker R. Intravenous diazepam in the treatment of neuroleptic-induced acute dystonia and akathisia. *Am J Psychiatry* 1978;135:1232-3.
4. Alarcon R, Carney MWP. Severe depressive mood changes following slow-release intramuscular fluphenazine injection. *Br Med J* 1969;3:569-7.
5. Raskin DE. Akathisia: a side effect to be remembered. *Am J Psychiatry* 1972;129:121-3.
6. Forrest DV, Fahn S. Tardive dyskinesia and subjective akathisia. *J Clin Psychiatry* 1979;40:206.
7. Kumar BB. An unusual case of akathisia. *Am J Psychiatry* 1979;136:1088.
8. Keckich WA. Violence as a manifestation of akathisia. *JAMA* 1978;240:2185.
9. Blum A. Patients at risk of developing severe side effects from depot fluphenazine treatment. *Am J Psychiatry* 1980;137:254-5.
10. Chien C, Di Mascio A, Cole J. Antiparkinsonian agents and depot phenothiazine. *Am J Psychiatry* 1974;131:86-90.

## An Amphetamine-Like Reaction to the Dexamethasone Suppression Test in Depressed Patients

ROBERT SOVNER, MD

*Drug Intake Management Evaluation System, Inc., Watertown, Massachusetts, and the Department of Psychiatry, Mount Auburn Hospital, Cambridge, Massachusetts*

THE DEXAMETHASONE suppression test (DST) has proven to be an effective tool in the diagnosis<sup>1</sup> and treatment<sup>2</sup> of depression. This test is considered to be a benign procedure with virtually no side effects, but

two recent reports have described DST-induced suicide attempts in depressed inpatients.<sup>3,4</sup>

In this article, four additional cases of dexamethasone-induced behavioral reactions are described. Taken together, these three reports suggest that the side effects potential of the DST, when used in psychiatric practice, needs to be reappraised.

Address requests for reprints to: Dr. Robert Sovner, DIMES, Inc., 71 Elton Ave., Watertown, MA 02172.