Acute Urinary Retention and Catatonia in a Schizophrenic Male Patient

To the Editor: Aside from the psychiatric manifestations, catatonia can be accompanied by medical comorbidities.[1] One such complication is urinary retention.[1,2] We describe a case of urinary retention associated with catatonia in which both conditions responded to benzodiazepine treatment.

Case report. The patient is a 35-year-old man with a history of schizophrenia who was initially admitted to an inpatient psychiatric hospital for treatment of an acute exacerbation of his illness secondary to noncompliance with psychiatric medications. While in the psychiatric hospital, the patient refused all medications, and his condition deteriorated. He was subsequently transferred to the medical emergency department for evaluation of a distended abdomen.

With the exception of tachycardia (126 bpm), his vital signs were within normal limits. The laboratory examination found no abnormalities in complete blood count, comprehensive blood panel, or urinalysis. His urine drug screen was negative, and a head computed tomography (CT) scan was unremarkable. The abdominal ultrasound and CT scan showed significant urinary retention (1,200 cc), with no evidence for obstruction noted. The patient underwent urinary catheterization and subsequent Foley catheter placement secondary to continued urinary retention.

The psychiatric consultation and liaison service was consulted and confirmed the above medical and psychiatric history. Psychiatric examination revealed stupor, negativism, mutism, echolalia, waxy flexibility, posturing, and catalepsy. A synthesis of the psychiatric history, course of illness, and the psychiatric and medical evaluations suggested the diagnosis of catatonia (*DSM-5* criteria[3]) with comorbid urinary retention.

Following the administration of lorazepam 3 mg, the patient's catatonic symptoms resolved. He was admitted to the general medical department for continued monitoring of urinary output and for bladder training. Recommendations were given for maintenance intravenous benzodiazepine treatment (lorazepam at a dose of 1 mg every 8 hours).

During psychiatry consultation liaison rounds the following day, it was noted that the recommendations for maintenance lorazepam treatment had not yet been instituted. The patient was found to be in a catatonic state with continued urinary retention. A second lorazepam challenge test of 2 mg resulted in resolution of the catatonia. Within 2 hours of a second lorazepam challenge, the Foley catheter was removed, and the patient was able to empty his bladder of his own volition. He was continued on a maintenance dose of lorazepam 1 mg by mouth every 8 hours. While the patient's catatonia and urinary retention continued to demonstrate a favorable response, psychosis remained. After a 4-day medical admission, the patient was transferred back to the inpatient psychiatric facility for continuation of psychiatric care.

While there is a great degree of anecdotal information regarding the relationship between catatonia and urinary retention, we found few published articles describing the phenomenon. Aside from the reported side effects associated with antipsychotic administration,[4,5] a PubMed search using the terms *catatonic*, *catatonia*, *schizophrenia*, and *urinary retention* retrieved only 2 case reports[6,7] documenting the relationship. One case[6] reported the resolution of both catatonia and urinary retention in a schizophrenic patient status after electroconvulsive therapy treatment. The second case[7] reported a temporal relationship between the resolution of urinary retention and the remission of psychotic symptoms in a patient with schizophrenia.

Our patient's response to the lorazepam suggests that the positive treatment response was mediated by modulation of the γ-aminobutyric acid (GABA) system.[8] This effect may be related to the role that the GABA system has on the central nervous system[9,10] or possibly an effect on the peripheral nervous system's ability to modulate sphincter control.[11]

Catatonia remains an underdiagnosed medical condition.[12,13] When catatonia is not diagnosed promptly, treatment of the condition itself as well as the associated medical comorbidities is delayed. Further research is required to assess the relationship between catatonia and urinary retention.

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