Treatment of Hypersexuality in an Elderly Patient With Frontotemporal Dementia in a Long-Term Care Setting

To the Editor: Dementia is a common cause of inappropriate sexual behavior.[1] These behaviors are often seen in frontotemporal dementia (FTD), particularly in its behavioral variant.[2] Hypersexuality behaviors such as compulsive masturbation are also considered among the symptoms seen in patients with obsessive-compulsive disorder (OCD).[3] Involvement of serotonergic neurons in frontal lobes, particularly the orbitofrontal cortex, basal ganglia (especially the caudate), cingulum, and thalamus, in OCD has been well studied by both clinical and imaging studies.[3] Presumably, neural disruption of frontotemporal areas, which is predominant in FTD, might be the underlying mechanism of hypersexuality in patients with FTD. Management of these behaviors in patients with dementia is very challenging. There are limited data on psychopharmacologic intervention for hypersexuality in FTD.[4] Although successful trials[2] of serotonergic agents in treating various obsessive-compulsive behaviors in patients with FTD have been reported, there is a lack of rigorous clinical trials. FTD patients are often institutionalized, and inappropriate sexual behaviors associated with FTD pose a significant challenge in long-term care settings. These behaviors increase the cost of long-term care, and crisis intervention is needed more frequently.[1] Furthermore, neural dysfunctions in FTD patients can lead to antisocial and criminal behaviors, which make the living environment unsafe for these patients and others.[5] Here, we discuss the complexity of managing a case of FTD with hypersexuality in a long-term care setting.

Case report. The patient is an 89-year-old single white man with dementia who was admitted to the geriatric psychiatric unit of a local hospital from a nursing home because of disruptive inappropriate sexual behavior. His inappropriate sexual behaviors included public masturbation, urinating on other residents, and touching other residents and nursing staff of the opposite sex inappropriately. His behavior symptoms eventually became unmanageable and caused safety concerns among residents and staff. His mental status examination was significant for poverty of speech, flat affect, impaired memory, poor fund of knowledge, impaired abstraction, and poor insight/judgment. He had no past psychiatric or alcohol or substance use history.

According to information obtained from his family before he was placed in a nursing home, he had previously exhibited similar hypersexual behaviors that responded well to short-term treatment with paroxetine. Paroxetine was discontinued after he was placed in the nursing home because he was behaviorally stable. Several months later, the same behavior symptoms relapsed, and this time he was admitted to the geriatric psychiatric unit.

His medical history was significant for Barret's esophagus, diabetes mellitus type 2, hypertension, gastroesophageal reflux disorder, and benign prostatic hypertrophy, but these conditions were all stable. His family history was notable for a sister who had Parkinson's disease but was negative for psychiatric disorders. His most recent laboratory tests yielded no positive findings. Multiple brain-imaging studies were performed during the past 14 years for different reasons including altered mental status, worsening of cognitive function, and falls. These images showed that since approximately 8 years ago, he had developed progressive brain atrophy predominantly in bilateral frontal and temporal lobes. On the basis of imaging studies and his clinical presentation, FTD was strongly considered to be the primary diagnosis (per *DSM-5* criteria). With the knowledge that he had responded favorably to paroxetine in the past, he was restarted on paroxetine, and the dose was titrated up to 40 mg daily. The aim of treatment was to stabilize his compulsive sexual behaviors so that he could be placed back in a long-term care setting. The patient steadily responded to paroxetine over time, and his inappropriate sexual behavior ceased completely. He tolerated the treatment with no noticeable side effects.

Lack of insight and gradual onset are the hallmarks of FTD.[6] There are multiple diagnostic criteria required for diagnosing the behavioral variant of FTD. Behavioral disinhibition and compulsive behaviors are primary symptoms.[2] Behavioral disinhibition is the classic symptom of FTD, especially its behavioral variant.[2] These behaviors may include inappropriately touching others, making offensive jokes or sexual remarks, being aggressive toward others, and disregarding social norms.[2] Other common symptoms are compulsive behaviors including counting rituals, hoarding objects, and wandering fixed routes.[2] This patient presented with multiple disinhibited behaviors. Although he did not have common compulsive behaviors such as constant hand washing, his compulsively repetitive sexual behavior such as public masturbation might be considered as both compulsive and disinhibited. Additionally, compulsive masturbation is known as one of the symptoms in patients with OCD.[3] Patients with FTD can also be involved in criminal activities.[2,5] Criminal behaviors are more common in the behavioral variant of FTD and can be an early manifestation of the disease.[5] Acts such as disinhibited sexual behaviors are often impulsive with no emotion or concern for consequences. They are seen in patients with frontal lobe damage, especially in the ventromedial prefrontal cortex.[7]

Management of these behavioral issues is critically important in long-term care settings. Failure in managing them may cause serious safety concerns or medicolegal issues. Therefore, any interventions that might help with these behavioral symptoms can significantly decrease the burden of caregivers.[2] Although there is no US Food and Drug–approved medication for the behavioral symptoms of FTD, the use of psychopharmacologic or behavioral interventions may have benefit in reducing the severity of symptoms.[2]

Current data support dysfunction of the orbitofrontal, anterior cingulate cortexes, basal ganglia, and thalamus as the underlying pathophysiology for these inappropriate repetitive behaviors.[8] There are also studies[9] showing reduction in serotonergic (5-HT_{1A} and 5-HT_{2A}) receptors in frontotemporal regions and neuronal loss in the raphe nuclei in patients with FTD. These studies[9] are consistent with successful use of serotonergic agents for behavioral symptoms of FTD. However, no double-blind study has proved the benefit of selective serotonin reuptake inhibitors (SSRIs) for behavioral issues in FTD.[2] Trazodone is the only serotonergic agent that has been successfully tested in double-blind clinical trials. Trazodone has been shown to be helpful in reducing some behavioral symptoms such as agitation, depression, and eating abnormalities but not sexual behaviors.[10] There are also case studies[11] reporting the use of ciproterone, a testosterone-like agent, in treating hypersexuality in FTD patients. The overlapping neurophysiologic basis and clinical features in both OCD and FTD may justify the use of serotonergic agents that are the standard drug therapy for OCD.

The positive outcome of treating this particular patient with paroxetine encourages consideration of the use of SSRIs in treating

disinhibited sexual behaviors in FTD patients. However, double-blind studies are needed to further prove the efficacy of SSRIs for these challenging behavioral symptoms of FTD.

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