Rapid and Sustained Resolution of Misophonia-Type Hyperacusis With the Selective Serotonin Reuptake Inhibitor Sertraline

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Hyperacusis is an increased sensitivity to certain frequencies and volume ranges of sound, often perceived as uncomfortably loud, painful, or intense. Hyperacusis can be triggered by a wide range of sounds, including seemingly innocuous repetitive noises such as chewing, lip smacking, and breathing.[1] Misophonia, meaning "hatred of sound," has been viewed as a subtype of hyperacusis and is defined by abnormally strong reactions to hyperacusis perceptions, including negative emotional and physical reactions to specific sounds.[2] Although it has been reported that the majority of individuals with severe hyperacusis have co-occurring mental health issues,[3] it is undetermined if it represents a primary psychiatric disorder, and it is believed to be a complex condition involving audiological, neurologic, and psychological phenomena.[2]

Treatment of hyperacusis typically involves evidence-based psychotherapies (EBPs) such as cognitive-behavioral therapy (CBT) and tinnitus retraining therapy, which primarily aim to improve coping with the sensations and associated distress. Although the co-occurrence of psychiatric disorders with hyperacusis is high, there is a paucity of literature on psychopharmacologic treatments. A literature review yielded primarily single case reports[4,5] of pharmacologic agents given in combination with EBPs as well as one published case series[6] on the resolution of infectious disease–induced hyperacusis with monotherapy pharmacologic treatment. However, no clinical case reports of monotherapy psychopharmacologic interventions (ie, without concurrent treatment with EBPs) for typical cases of hyperacusis were identified. The authors report the first such case involving successful treatment of misophonia-type hyperacusis with the selective serotonin reuptake inhibitor (SSRI) sertraline.

Case Report

The patient is a 32-year-old white man who presented to establish care with a primary care provider in May 2019. During the intake appointment, he complained of hyperacusis with accompanying anxiety and was referred to the Primary Care Mental Health Integration (PCMHI) team. On initial presentation, he endorsed moderate anxiety symptoms and mild depressive symptoms, as defined by his scores on mental health assessment scales (7-item Generalized Anxiety Disorder Scale [GAD-7] score = 14, 9-item Patient Health Questionnaire [PHQ-9] score = 7).[7,8] Regarding his hyperacusis sensations, he reported oral noises (chewing, whistling) and repetitive noises (pen clicking, toe tapping) as specific triggers and described "severe distress" to the point that he expressed a desire to be deaf as a preferred alternative to continuing to experience these perceptions.

The patient consented to psychotherapy with a plan to begin a course of CBT and was referred to audiology specialists with a plan to begin sound tolerance therapy (STT). Additionally, sertraline 50 mg daily was started for co-occurring anxiety and depression, and he entered a telephonic care management program to monitor mood. At his first appointment to begin CBT, 3 weeks after initial presentation, he reported a substantial improvement in misophonia symptoms including "zero triggers of aggravating noise" and a nearly complete resolution of accompanying mood symptoms (GAD-7 score = 0, PHQ-9 score = 1). As he was essentially asymptomatic, he declined to begin CBT or STT. He continued in the care management program and with occasional symptomatic check-in sessions with psychology, but did not begin EBPs. Depressive and anxiety symptoms waxed and waned throughout treatment, and sertraline was subsequently increased to 100 mg daily then 150 mg daily. Of note, however, he consistently reported near total resolution of misophonia symptoms even during periods of increased mood symptoms. At last follow-up with the PCMHI team, approximately 7 months after initiation of sertraline, he was experiencing moderate symptoms of depression and anxiety (PHQ-9 score = 14, GAD-7 score = 14), but continued to endorse that his misophonia symptoms were "cured" and reported "no concerns related to sensitivity to sounds."

Discussion

This case suggests a potential pharmacologic treatment option for misophonia-type hyperacusis. Importantly, the rapid and sustained resolution of misophonia symptoms occurred independent of changes in depression and anxiety.

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This finding suggests that sertraline may have mechanistic action for the direct treatment of misophonia-type hyperacusis as opposed to merely assisting coping through decreasing co-occurring mood symptoms and may help to shed light on the etiology of this complex disorder. Further studies investigating treatment of hyperacusis, both with and without co-occurring misophonia reactions, with SSRI antidepressants are warranted.

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