

was observed during this study, DBS to the NAcc did result in better depression scores and interesting metabolic correlations [Bewernick BH et al. *Biol Psychiatry* 2010].

As Dr. Schlaepfer pointed out, DBS is a promising technique for the treatment of refractory depression and has demonstrated a 50% reduction of symptoms in several studies, which, in light of the extreme treatment refractoriness of the patients who were studied, was unexpected and astonishing. However, there is some debate as to the most appropriate focal region for DBS.

Psychopharmacology

Venlafaxine may be a viable option for patients with refractory MDD. However, there remains some uncertainty about the optimal dose and a therapeutic range for serum levels. Venlafaxine and its active metabolite, O-desmethyvenlafaxine (ODV), blocks serotonin (5HT) and norepinephrine (NA) reuptake, depending on the dose. Qaiser Javed, MBBS, University Hospital Aintree, Liverpool, UK, discussed the relationship between high-dose venlafaxine XL and serum levels of venlafaxine and ODV.

According to a cross-sectional, open-label study that included 50 patients with MDD who were on venlafaxine XL (225-525 mg) for at least 12 weeks, there was a significant correlation between ODV levels and mood ($p < 0.04$) and ODV levels and general feelings ($p < 0.02$). There was also a significant correlation between ODV and venlafaxine levels and patient functioning ($p < 0.03$ for both). Venlafaxine dose was positively correlated with serum levels of venlafaxine and ODV.

Faouzi Alam, MD, St. Catherine's Hospital, Liverpool, UK, discussed the tolerability of high-dose venlafaxine XL that was related to this study. Of the 50 patients who were included in this study, 4% reported severe side effects (sweating and weight gain) and considered treatment discontinuation. Moderate side effects included headache, sweating, constipation, sedation, dizziness, and mood swings. The most common mild side effects were sweating, sexual dysfunction, anxiety, and dry mouth. No significant ECG abnormalities were observed. There did not appear to be a correlation between medication dose and side effect frequency or severity, nor did ODV or venlafaxine levels appear to correlate with side effect frequency or severity. Randomized, double-blind clinical trials are required to establish the safety and efficacy of high-dose venlafaxine XL therapy and the impact of serum levels on treatment response.

Refractory MDD poses a treatment challenge for clinicians. However, there are many promising new strategies that may alleviate the therapeutic burden that is associated with treatment-resistant depression.

Olfactory Reference Syndrome: An Under-Recognized Disorder

Olfactory reference syndrome (ORS) is a disabling psychiatric disorder that is characterized by the excessive, irrational fear that one is emitting a foul or unpleasant odor. The obsession may be an exaggerated, disproportionate concern with a natural body smell or may involve an entirely imagined odor.

Patients with ORS “suffer tremendously,” said Katharine Phillips, MD, Rhode Island Hospital, Providence, RI. “They are impaired in terms of functioning and have high rates of suicidality.”

Dr. Phillips and colleagues assessed 20 patients and found that the average patient was female, in her early 30s, and had first started experiencing these concerns around the age of 16 years. These subjects were convinced their belief about the odor was real, even though no one else could detect it.

Nearly all subjects (95%) performed at least one ORS-related compulsive behavior, most commonly smelling themselves (80%), showering excessively (68%), and changing clothes excessively (50%).

“These individuals spend 3 to 8 hours a day preoccupied with concerns about body odors,” said Dr. Phillips. “Some used an entire bar of soap in one shower.”

The most common areas patients felt the odor originated from was the mouth, followed by the armpits, genitalia, anus, feet, and skin. Bad breath was the concern of most (75%), followed by foul sweat (65%), flatulence or feces (30%), and urine (20%). Most were concerned about multiple odor sources, and 85% reported actually smelling the odor—ie, they had what was described by Dr. Phillips as an olfactory hallucination.

Three quarters had avoided social situations, and 40% reported staying at home at least one week at a time because of perceived odors. Suicidal thoughts were reported by 68%, and 32% had actually attempted suicide. About half (53%) had had psychiatric hospitalizations.

The most common lifetime comorbid disorders that were associated with ORS were major depressive disorder (85%), social phobia (65%), and substance use disorders (50%). Nearly half (44%) had sought nonpsychiatric treatment for their perceived body odor, such as from a dermatologist.