

Neurosurgical treatment of OCD: Patient selection, safety, and access

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Obsessive-compulsive disorder (OCD) is typically a severe, chronic illness in which patients have recurrent, unwanted thoughts, urges, and compulsions.¹ It causes significant morbidity and lost potential over time, and is the world's 10th-most disabling disorder in terms of lost income and decreased quality of life, and the fifth-most disabling mental health condition.² Patients with OCD (and their clinicians) are often desperate for an efficacious treatment, but we must ensure that those who are not helped by traditional psychotherapeutic and/or pharmacologic treatments are appropriate for safe neurosurgical intervention.

Pros and cons of neurosurgical therapies

Most patients with OCD are effectively treated with cognitive-behavioral therapy and pharmacotherapy in the form of selective serotonin reuptake inhibitors, clomipramine, or second-generation antipsychotics. However, up to 5% of individuals with OCD will have symptoms refractory to these traditional therapies.³ These cases require more aggressive forms of therapy, including radiofrequency ablation surgeries and deep brain stimulation (DBS). The efficacy of both therapies is similar at 40% to 60%.^{4,5} While these treatments can be life-changing for patients fortunate to receive them, they are not without issue.

Only a limited number of institutions offer these neurosurgical techniques, and for many patients, those locations may be inaccessible. Patients may not experience

relief simply due to where they live, difficult logistics, and the high cost requisite to receive care. If fortunate enough to live near a participating institution or have the means to travel to one, the patient and clinician must then choose the best option based on the nuances of the patient's situation.

Ablation techniques, such as gamma knife or magnetic resonance-guided ultrasound, are simpler and more cost-effective. A drawback of this approach, however, is that it is irreversible. Lesioned structures are irreparable, as are the adverse effects of the surgery, which, while rare, may include a persistent minimally conscious state or necrotic cysts.⁴ A benefit of this approach is that there is no need for lengthy follow-up as seen with DBS.

DBS is more complicated. In addition to having to undergo an open neurosurgical procedure, these patients require long-term follow-up and monitoring. A positive aspect is the device can be turned off or removed. However, the amount of follow-up and adjustments is significant. These patients need access to clinicians skilled in DBS device management.

Finally, we must consider the chronically ill patient's perspective after successful



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treatment. While the patient's symptoms may improve, their lives and identities likely developed around their symptoms. Bosanac et al⁶ describe this reality well in a case study in which a patient with OCD was "burdened with normality" after successful DBS treatment. He was finally able to work, build meaningful relationships, and approach previously unattainable social milestones. This was an overwhelming experience for him, and he and his family needed guidance into the world in which most of us find comfort.

As ablation techniques, DBS, and other cutting-edge therapies for OCD come to the forefront of modern care, clinicians must remember to keep patient safety first. Verify follow-up care before committing patients to invasive and irreversible treatments.

While general access is currently poor, participating institutions should consider advertising and communicating that there is an accessible network available for these chronically ill individuals.

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Clinical Point

As more cutting-edge OCD therapies come to the forefront of modern care, we must remember to keep patient safety first