ECT and TMS

Innovative Treatment Options for Patients

Only a fraction of individuals suffering from depression seek treatment. Of those who do, greater than 30% fail to achieve satisfactory improvement. Not all patients improve when treated with medications or psychotherapy. Up to 25% of people suffering from depression will not respond to multiple trials of medication due to a lack of efficacy or difficulty tolerating medication. Likewise, many people struggle to respond to the best efforts of psychotherapy, either due to a lack of response or a lack of time and/or financial resources that are necessary for psychotherapy interventions.

Alternate treatment modalities such as Electroconvulsive therapy (ECT) or Transcranial Magnetic Stimulation (TMS) are critical to addressing the ongoing needs of patients who suffer from the debilitating effects of depression.

More than 14 million American adults suffer from depression. By 2020, depression will be the second highest cause of disability worldwide. As the number one major public health problem in the United States with an estimated cost of $83 billion, the impact is tremendous. Approximately 30% of depressed patients attempt suicide.

To schedule a consultation, please call 513-536-0536.

Lindner Center of HOPE®

ECT Treatment

Considered a gold standard for treatment resistant depression, ECT is a safe and effective medical treatment for certain psychiatric disorders and has been used for over 60 years. In the United States, about 100,000 individuals receive ECT each year. It is most commonly given when patients have severe depressive illness, mania, or some forms of schizophrenia.

When patients have life-threatening psychiatric symptoms, such as strong suicidal urges or depression that is causing a complete inability to care for one's basic needs, ECT is often recommended. It can often provide faster relief than medications. Overall, about 80% of the depressed patients treated with ECT show substantial improvement. ECT is the most effective neuromodulation technique with 70-90% remission rate in most studies.

How ECT Works

Electroconvulsive therapy uses precisely calculated electrical currents administered in a controlled setting to achieve the most benefit with the fewest possible risks. With this procedure, the patient is under general anesthesia, while a brief electrical charge is applied to electrodes on the scalp. This stimulates the brain and produces a generalized seizure that lasts for approximately one minute. When the treatment is completed, the patient is taken to a recovery area for monitoring by trained staff. Usually within 30 to 60 minutes, the patient can leave the recovery area.

TMS Treatment

Depression has been linked to an abnormal function of nerve cells in a specific part of the brain. Highly focused magnetic field pulses used in Transcranial Magnetic Stimulation (TMS) therapy gently stimulate these nerve cells. Evidence shows that TMS is effective in the treatment of moderate to severe depression in patients with a history of treatment resistance.

An assessment with a TMS providing psychiatrist determines if a patient is a good candidate. If approved, patients are also required to obtain a history and physical examination from their primary care doctor. New data emerging from recent studies suggests that in most patients, the clinical benefits of TMS were maintained through 6 months.

How TMS Works

TMS is a non-invasive, localized treatment conducted using a device that delivers rapidly pulsating and localized magnetic fields that activate a subset of nerve cells in the front part of the brain. While treatment is administered, patients remain awake while sitting in a comfortable reclining chair. A treatment coil is applied to the head and the system generates highly concentrated magnetic field pulses. The treatment is delivered in a series of 40-minute outpatient treatments, typically administered daily, (5 days per week) for 4 to 6 weeks.

TMS therapy does not require anesthesia or sedation therefore patients remain awake and can maintain their normal daily routine after receiving TMS therapy.

What's right for your patient?

ECT and TMS are both procedures that treat depression and can be an option when a patient has failed traditional treatments or does not tolerate medication. Limited data is available regarding maintenance treatments for both ECT and TMS. However, TMS has been researched scientifically for over two decades. In TMS trials, the antidepressant effect in patients who have not benefited from prior medications was established. With any treatment, patients and clinicians should work together to determine the most appropriate option.

Sharing My Journey with TMS Therapy

by Ira H., a TMS patient of Lindner Center of HOPE

For the last 14 years, I have had recurring episodes of severe, totally disabling clinical depression, each lasting between 4 and 14 months. In recent years, the episodes were getting longer and closer together. It seemed to me that I was looking at spending the rest of my life in severe clinical depression.

I have been through at least 6 psychiatrists, have tried all of the commonly prescribed meds, including some anti-psychotics that are prescribed off-label for treatment-resistant depression. Nothing was helping me, until I found THE COMPLETE ANSWER (at least for me): Transcranial Magnetic Stimulation. On February 2, 2010, I walked into Lindner Center of HOPE and at that time, I was not able to drive safely and could barely find my way into the parking lot.

After a series of 32 treatments, one-a-day for six-weeks, I am in remission. They gave me my life back. I personally consider TMS will revolutionize the treatment of "treatment-resistant" depression.

The Pros and Cons of ECT and TMS

ECT Pros

Long-standing track record of efficacy, especially in severe, life threatening cases of depression or Bipolar Disorder.

May be a useful, lifesaving alternative for patients who may not want or tolerate medications (elderly patients, pregnant patients).

Most effective and rapid treatment if psychosis is present.

Utility of maintenance treatment with ECT has been shown to help patients when medications no longer are as effective.

Treatment can be transitioned to or even started in an outpatient setting.

Improvements have resulted in a better tolerated treatment.

Relatively good third-party coverage for this treatment.

ECT Cons

The use of anesthesia and induction of a generalized seizure results in short-term cognitive side-effects immediately after treatment.

Allergic reaction to anesthetic, risk of infection due to need for IV.

Memory loss immediately prior to or after the treatment may occur.

Drowsiness, headaches, muscle soreness can occur after treatment.

May require up to 12 treatments before efficacy is established.

Cannot work or drive on days that ECT is received.

TMS Pros

Does not require anesthesia, non-invasive, well tolerated.

An outpatient service and patient continues normal daily routines.

Current data demonstrates efficacy in patients who have struggled with medication.

May be good alternative for patients who responded to ECT in past.

No significant memory impairment.

FDA Approved in 2008 for the treatment of depression.

TMS Cons

Facial twitching during the treatment.

Skin redness at site of coil placement.

Anxiety before and during treatment.

Mild discomfort (usually dissipates by end of first treatment).

Headache.

Expense - Private Pay or limited third-party coverage.

Time – requires 30 treatment of an hour in length over 6 weeks.

www.lindnercenterofhope.org/ect_tms

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