Use of ECT on the rise?

Practice trends at odds with study results

For a treatment that’s existed for nearly a century, the function of electroconvulsive therapy, or ECT, is still somewhat of a mystery. Researchers are at a loss to explain why sending an electronic current through the brain, causing a convulsion similar to a grand mal epileptic seizure, relieves acute feelings of depression.

Once known as “shock therapy” or “electric shock treatment,” ECT began in the 1930s when psychiatrists in Italy noticed that schizophrenic patients improved temporarily after a spontaneous seizure. Early attempts at replicating the effect with patients were partially successful and the treatment spread quickly around the world despite intense side effects. Patients often experienced memory loss along with broken teeth and bones from thrashing caused by the seizure.

Over the years, treatments improved with the introduction of anesthesia, muscle relaxants and finer tuned techniques to administer the electric impulses. According to the American Psychiatric Association, today’s ECT is extremely safe and effective and no more dangerous than minor surgery under general anesthesia. Performed only under the supervision of a psychiatrist, ECT is administered for treatment of severe depression. It is also indicated for use in treating bipolar disorder, schizophrenia, schizoaffective disorder, delirium, and neuroleptic malignant syndrome.

“ECT is an incredibly effective treatment for certain disorders,” says Tom Hickey, CEO of Pembroke Hospital in Pembroke, Mass., “especially for those who are not responding to traditional medications and therapies. Unlike medications that take weeks before you see effects, there is an almost immediate response with ECT, typically after two or three treatments.”

The treatment is thought to disrupt the normal patterns of blood flow and metabolism, rebalancing the activity between right and left hemispheres. Today, more than 100,000 people are treated with ECT throughout the United States. It’s a number that has risen in recent years, after the treatment fell out of favor in the 70s and 80s, partially because of bad press.

“ECT has been around forever and in the last 15-20 years, they have begun to perfect it to the point that it is relatively harmless with a low side effect profile,” Hickey says. “It is not what it used to be or as it was depicted in movies like ‘One Flew Over the Cuckoo’s Nest.’”

In a recent study conducted by Butler Hospital and Bradley Hospital in Rhode Island, the researchers found a sharp decline in availability of ECT in general hospitals across the U.S. The study, taken from nationally representative data, may only reflect a change in how and where the treatment is being administered, however. Freestanding psychiatric hospitals weren’t included in the data. Neither was outpatient ECT treatment.
“We are part of the National Network of Depression Centers, 18 academic centers focusing on depression,” says Stephen Seiner, M.D., director of McLean Hospital’s ECT services. “The study says that ECT is in decline but part of our work is collecting data and across our centers, it looks like its use is expanding.”

According to Seiner, McLean administered just over 7,000 treatments last year, up from around 2,000 in 1999. It could be a factor of ECT becoming more centralized in private psychiatric hospitals that can dedicate a space to it. ECT facilities have recently been added to Pembroke Hospital, in part to ease the overload of patients at Arbor Hospital.

“Traditionally it was done on an inpatient basis in general hospital settings,” says Hickey. “More and more, ECT is become an outpatient option now.”

The study is not conclusive on these questions, says Lawrence Price, M.D., one of the co-authors of the paper and the clinical and research director at Butler Hospital, but the researchers still believe it points to a decline in overall access. Many patients are too ill to receive outpatient treatment, for one thing, and a number of private psychiatric hospitals have closed, thereby reducing the pool of facilities to take up the slack.

The study also pointed to a concern that access to ECT may have become more difficult for certain populations.

“Increasingly, the poor and uninsured have less access to treatment because these individuals are unlikely to have access to hospitals where it is being offered,” says Price, who is also a professor of psychiatry and human behavior at Brown University.

Because of the known side effects, temporary memory loss among them, and the need for anesthesia and the invasive nature of the procedure, ECT is generally reserved for only the most acute cases, the catatonically or psychotically depressed for whom other treatment has failed to work. According to the American Psychiatric Association, studies have shown ECT to have an 80-90 percent response rate in the severely depressed.

“This should not be used in indiscriminate fashion,” says Price, “but for some people this is life-saving treatment.”

Plus, it is not expected to completely cure the patient, Seiner adds. Instead, ECT takes the extreme case and brings them back to a more reasonable baseline. “It is a short term treatment,” says Seiner. “Once you get the patient better, the question is how to keep them better. You can do long-term maintenance ECT or medication. Think of it as resetting the brain.”

“ECT has come a long way,” says Seiner “and there is resurgence and a demand for it.”