Electroconvulsive Therapy (ECT) is a medical procedure used to treat various mental and neurological illnesses. It is, however, most commonly used to treat severe clinical depression, a condition characterized by a depressed mood and various other physiological disturbances, including sleep and appetite disturbances, and libido dysfunction. The procedure is performed by a highly skilled psychiatrist and involves inducing a controlled seizure. Its efficacy in treating severe mental illness is recognized by, amongst others, the American Psychiatric Association, the American Medical Association and the National Institute of Mental Health.

ECT was the only medical treatment for mental illness until the 1950’s and therefore became widely used for a range of mental disturbances. It was replaced by the first drug treatments, which proved far less traumatic and to a large extent more effective. In recent years ECT use has increased mostly due to widespread evidence of its efficacy. According to Dr. Sheldon Zilesnick, a psychiatrist in private practice, “ECT remains a treatment reserved to treat severe depression.” The reason for this is that the procedure is cumbersome and it is often easier to take medication.

Our treatment for mental illness has become more sophisticated with our increased awareness of the body. Before the late 1950’s, ECT was administered without anesthesia or muscle relaxants. Thus the treatment was both frightening and could be painful. In the 1950’s film One Flew Over the Cuckoo’s Nest, we saw an unruly psychiatric patient being “treated” with ECT. Times have change and ECT is now a humane form of treatment. It is now used in conjunction with general anesthetic and muscle relaxants.

According to Prof. George Petrides, of New Jersey Medical School, “It is widely known that when the neurotransmitters in the brain are unbalanced, a disturbance in functioning results. We believe that ECT alters these chemicals, by ‘restarting the brain.’ In this way ECT is much like ‘rebooting a computer’. Very little is actually known about how ECT works. Some believe that it alters dopamine levels, which then alleviates the condition. Evidence of this is seen in the use of ECT to treat Parkinson’s disease that is characterized by disturbances in this part of the brain.

As mentioned, ECT is most often used for the most severe depression. It has however also been used either when other pharmacological treatments have failed or if the side effects of these treatments cannot be tolerated. ECT may also prove necessary when other treatments will not help quickly enough, for instance with severely suicidal patients. Furthermore, according to Dr. Zilesnick, “ECT may be the treatment of choice with patient who have a history of poor medication response and good ECT response in one or more previous episodes.”

Depression is a mental illness characterized by a depressed mood and other similarly unpleasant physiological symptoms. Antidepressants are the preferred mode of treatment for depressive episodes. However, 10-30% patients do not respond to these medications and are considered to be suffering from Treatment Resistant Depression (TRD). ECT has proven very effective for treating TRD, with more than 80% of patients treated with ECT recovering considerably. According to Dr. Zilesnick, it is even more effective when used to treat psychotic depression, with 90-95% recovering substantially.

The risks of ECT are minimal and are equal to those associated with other minor medical procedures. It is worth noting that there are other medical conditions that increase the risk associated with ECT. A patient is carefully screened by the psychiatrist before he/she will recommend ECT.

Patients are often apprehensive about undergoing any medical procedure. It is therefore important to know what the procedure entails. Prior to the procedure the patient is given general anesthetic and muscle relaxants. Thus the patient does not convulse and feels no pain during ECT. Electrodes are placed at specific locations on the head, either unilaterally or bilaterally. The brain is then stimulated with a brief, controlled series of electrical pulses in order to induce a seizure. The patient usually wakes after 5-10 minutes. Treatment includes 6-12 sessions, spaced up to a few days apart. Patients may also have ECT on an outpatient basis and may not have to stay in the hospital for the duration of the course of ECT.

The patient may wake after ECT feeling confused or dizzy, at first and may complain of aching muscles, headaches and/or nausea. If present these often only last for an hour or two last. There has been much concern recently about the effects of ECT on memory, as these seem to be by far the most pervasive. According to Prof. Petrides, “the partial memory loss is short-lived and in most cases only lasts for the duration of the treatment.”

Dr. Petrides further stated that, “over the course of ECT, patients may struggle to remember newly learned information.” These difficulties do often disappear over the days and weeks following the completion of the ECT course. Patients also report partial loss of memory of events that occurred during the days, weeks and months leading up to the treatment. Even though most of these memories typically return, some patients have reported longer lasting problems with recalling these memories. While it is highly unlikely that you will have long-term difficulty in recalling information, it should be a consideration.
Another consideration is the cost of ECT. The cost of any psychiatric treatment varies widely, depending on the facility administering it. Usually, however, ECT costs roughly R 1500 per treatment, an amount that covers the psychiatrist, anesthetist, and various hospital charges. The average number of treatment is about eight. The cost of ECT is at least partially reimbursed and in some cases fully reimbursed by medical aids. You should discuss this fully with your psychiatrist and medical aid scheme.

The doctor performing the procedure must gain "informed consent. This entails carefully reviewing what treatment involves, in clear language. According to Prof. George Petrides, it may also be useful to include the family in the consultation, where the risks and the benefits of the procedure can be explored. It is also important to fully discuss all treatment options, so that the patient can make an informed decision. Prof Petrides encourages questions and has in the past suggested meeting with former ECT patients. It is important to remember that you are a participant in your treatment and may withdraw consent at any time.

Report: Advanced Certificate in Electro-Convulsive Therapy (ECT)
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