Electroconvulsive Therapy

Introduction

1. Electroconvulsive Therapy (ECT) is particularly effective for the treatment of severe depression, especially when medications or other therapies need a longer time to take effect and are deemed unsatisfactory. Other mental conditions that can be treated by ECT include schizophrenia and mania.

2. ECT is not an all-purpose treatment. The patient may need other forms of help in aspects of psycho-social support, family and work.

3. The objective of ECT is to rectify abnormal bio-chemical functions inside the brain by administering controlled electrical impulse to the scalp. The majority of patients suffering from depression recover speedily after the procedure.

The Procedure

1. A patient receiving ECT is like undergoing a minor procedure under general anaesthesia. The patient is required to fast in the preceding several hours, wear loose-fitting clothes, remove all accessories and denture etc. Inside the treatment room, an anaesthetist injects a general anaesthetic and muscle relaxant into the patient who is given oxygen to fall into gradual sleep. Heart, lung and other vital functions are monitored closely. A brief and controlled electrical impulse is administered to the patient's scalp to cause mild seizure of the brain. With the anaesthetic drugs taking effect, the seizure experienced by the patient's body will only be mild and short. The whole procedure lasts for several minutes only.

2. When the patient wakes from the anaesthesia in the recovery room, a nurse will be around and offer him / her recovery care. Usually there is no major discomfort after the treatment. A small proportion of patients experience minor disorientation or headache, but this will subside soon.

3. A typical course of ECT usually comprises of 2 to over 10 treatment sessions, at an interval of 2 to 4 days.

Risks and Complications

1. Common side effects include headache, muscle aching and nausea, which usually settle within a few hours.[1]

2. ECT can lead to disruption in memory and cognitive skills, however this is usually temporary. Patients can ask for further information from their psychiatrists.

3. ECT is a low-risk procedure. There is a small physical risk from having a general anaesthesia – death or serious injury occurs in about 1 in 80,000 treatments, around the same level of risk in dental anaesthesia. However, as ECT is given in

a course of treatments, the risk per course of treatment will be around 1 in 10,000.[1]

4. During ECT, there may be changes in blood pressure, heart rate, and intracranial pressure which are short-lived.[1] For patients with heart disease or brain tumor, the doctor will exercise special care.

5. Dental injury and bone fracture are possible but these are not common with special precautionary measures.

6. Other uncommon or rare serious risks and complications include cardiac arrhythmia, myocardial infarction, stroke, prolonged seizure, status epilepticus, laryngospasm, peripheral nerve palsy and treatment emergent mania.[2,3 & 4]

Remarks

1. If the patient does not accept ECT, he / she may need more time to recover and thus the suffering lengthens. Suicidal ideas may persist longer. The use of medications or other therapies may also lead to other side effects or complications. Therefore the patient should discuss with the doctor which kind of medical treatment is the most beneficial.

2. The patient can withdraw his / her consent for ECT at any time. The consent form is not a binding document. It is not mandatory for the patient to undergo the treatment even he / she has signed it. It is only a record showing the patient's informed consent and full understanding of what will happen to him / her. If the patient withdraws the consent, it will not affect his / her right to continue receiving other treatment alternatives in his / her best interest.

3. This pamphlet is for general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information, please contact your doctor.

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[1] Ferrier, I. N. & Waite, J. (Eds.). (2019). The ECT Handbook (4th ed.). Cambridge: Cambridge University Press.

[2] National Institute for Health and Care Excellence. (2009, October 01). Guidance on the use of electronconvulsive therapy. Retrieved March 19, 2021, from http://www.nice.org.uk/guidance/ta59/resources/guidance-guidance-on-the-use-of-electroconvulsive-therapy-pdf-2294645984197

[3] Keith G. Rasmussen (2019). Principles and Practice of Electroconvulsive Therapy. Washington, DC: American Psychiatric Association Publishing.

[4] Enns, M. W., Reiss, J. P., & Chan, P. (2010). Electroconvulsive Therapy - Position Paper. The Canadian Journal of Psychiatry, 55(6). Retrieved March 19, 2021, from https://www.cpa-apc.org/wp-content/uploads/ECT-CPA_position_paper_27-revision_1-web-EN.pdf