

# **Electroconvulsive therapy: Psychiatric associations in four countries recommend its timely and appropriate use**

**In recent decades, psychotherapy and pharmacotherapy have made substantial progress in the treatment of severe psychiatric disorders. However, it is becoming increasingly apparent that not all patients respond satisfactorily to these therapies, even under optimal conditions. Electroconvulsive therapy (ECT) represents a supplementary treatment method that often shows excellent results, even in severely ill patients. Under the auspices of the transnational section 'Clinically applied stimulation techniques in psychiatry' of the DGPPN, the four societies named below, from Germany, South Tirol, Austria and Switzerland, have prepared this statement to draw attention to the scientific evidence and existing recommendations. They are jointly promoting the timely and appropriate use of ECT. The aim is to ensure optimal use of the treatment method to reduce the likelihood of chronic illness.**

## **Participating societies**

German Association for Psychiatry and Psychotherapy (DGPPN)  
Società Italiana di Psichiatria, Trentino Alto Adige (SIP)  
Austrian Association of Psychiatry and Psychotherapy (ÖGPP)  
Swiss Society for Psychiatry and Psychotherapy (SGPP)

## **Development and current status of electroconvulsive therapy**

In the course of its 75-year history, electroconvulsive therapy (ECT) has been continuously developed through technical innovations and quality assurance measures: in contrast to the early days of ECT contemporary practice is more clearly defined and the procedure is performed solely by physicians. The legal status as a medical procedure means that either the patient or the patient's legal representative have to give informed consent. Brief anaesthesia with muscle relaxation, modern monitoring methods, supportive anaesthesiological procedures and gentle stimulation paradigms have significantly improved the safety profile of ECT. In particular, these measures have considerably reduced cognitive side effects. These days, the risk of life-threatening complications hardly differs from that associated with a brief anaesthesia in general. This modern medical standard, together with the good efficacy in otherwise treatment-resistant disorders, makes ECT a very important tool in the treatment of severe psychiatric disorders (Shorter 1997, Conca et al. 2004, DGPPN et al. 2012).

Ladislav Meduna's basic hypothesis about the mode of action, which states that the generalised epileptic seizure is the therapeutic medium of ECT, is still valid today. All attempts to modify this core component of the method were associated with a loss of therapeutic impact. ECT is effective in a very wide range of syndromes (Swartz 2009).

The acceptance of this previously stigmatised procedure is gradually increasing in German-speaking countries. In Germany, almost half the psychiatric hospitals use the procedure;

over the course of the past 13 years, the number of treatments has increased 2.5 fold (Loh et al. 2011). Similar developments can be seen in neighbouring countries: in Austria, the number of ECT centres has grown from 7 to 11; in South Tirol, two centres have been established in the public sector. In the mid-1990s, political efforts in three regions of Italy attempted to legally ban ECT but were rejected as unconstitutional by Italy's supreme court in 2002. The justification for the decision was that an evidence-based treatment cannot be abolished and withheld from patients. At the same time the Italian supreme court requested that specialists decide such subject-specific questions in professional committees on the basis of scientific criteria and do not leave them to the legal system. The situation in Switzerland is very heterogeneous because of the country's cantonal structure. For example, some cantons have a relatively high acceptance of ECT (Aargau, Appenzell Ausserrhoden, Bern, Wallis, Zurich, Zug), some a rather reserved attitude towards the procedure (Basel Stadt, Vaud) and the political climate in some (Geneva, Jura) is rather against it. Despite the growing acceptance of ECT in German-speaking countries, the procedure is still used considerably less often than in other industrialised countries such as Australia, Denmark, Great Britain and the USA.

### **Evidence-based indication for electroconvulsive therapy**

Currently, ECT is primarily used for the treatment and prophylaxis of severe depressive episodes. Even today a considerable number of patients do not respond satisfactorily to antidepressant medication and psychotherapy (Gaynes et al. 2009). The main treatment objective must continue to be complete remission of the depression and maintenance of remission (DGPPN et al. 2012). ECT is indicated if:

- the clinical state is particularly severe, e.g. life-threatening (ECT is indicated in particular in depressions with suicidal and psychotic symptoms because it acts rapidly and has a good response rate)
- ECT carries less risk than drug treatment (sometimes the case in old age, pregnancy or drug intolerance)
- ECT has already helped particularly well in the past or the patient prefers ECT, assuming a suitable diagnosis
- the patient is treatment resistant (at least two adequate trials of antidepressants from different classes have not resulted in improvement)

(Wissenschaftlicher Beirat der Bundesärztekammer [Scientific Committee of the German Medical Association] 2003, Payne and Prudic 2009, DGPPN et al. 2012). Further indications for ECT include catatonia and treatment-resistant schizophrenic disorders.

In contrast to the recommendations mentioned above, in Germany, Italy, Austria and Switzerland ECT continues to be used as a last resort treatment. In consequence, patients only receive ECT when they are considered untreatable with other treatment approaches. Unfortunately, some of the doctors and non-medical staff working in psychiatry, as well as patients and the general public, have strongly internalized this principle, leading to a delay in performing ECT often of months or years. However, because the duration of an episode and the number of unsuccessful treatment attempts are negative predictors for the success of subsequent treatment (Kho et al. 2005) and because ECT is a very promising treatment

option (UK ECT Review Group 2003, DGPPN et al. 2012), ECT should be used consistently and at an early stage.

### **Why should we overcome the use of ECT as a last resort?**

On the basis of the data currently available, a delay in performing ECT or a general abstention from using it must be seen as problematic. From a legal perspective, demands must be made that in severe cases early and adequate information is given about ECT as a treatment alternative. Laws and judgements exist in Germany, Italy and Austria that make treating a patient without supplying comprehensive information about alternative treatment options such as ECT untenable. This also applies to Switzerland as far as court rulings are concerned, even though the legislative provisions of the cantons differ. The physician is therefore obliged to inform a patient about the possibility of ECT as soon as it represents a promising treatment option.

Early provision of information means that patients with depressive episodes should be informed about the possibility of ECT at the latest after two unsuccessful treatments with antidepressants, performed according to the applicable standards, and psychotherapy. These treatments should be performed appropriately, but limited to a relevant time period. Information about the possibility of ECT should be given at the start of treatment if patients are delusional or at acute risk. Schizophrenia patients with affective or positive symptoms should be informed promptly about this possibility if drug treatment proves unsuccessful. Adequate explanation requires that the physician has basic knowledge about ECT and an open attitude towards the approach. The physician should use both resources when providing the information.

It is not uncommon for patients to find out about the option of ECT through internet research and to request this treatment from psychiatric departments on their own initiative, instead of having received the information from a professional source. Valuable time is often lost through treatment attempts directed by complicated algorithms that are based on questionable evidence. At the same time, the prognosis worsens with increasing illness duration. In contrast, the response rates for ECT are above 50% in general, even in particularly treatment-resistant patients. Apart from a few restrictions, ECT can be combined with pharmaco- and psychotherapy without difficulty as part of an overall treatment plan. Furthermore, there are indications that ECT reduces treatment resistance to psychopharmaceuticals.

From a psychotherapeutic perspective, characterizing ECT as a treatment of last resort may be harmful. Anyone who is offered this treatment explicitly as the last option must subsequently ask him- or herself: What will happen to me if this last option also doesn't help? The portrayal of ECT as a treatment of last resort may promote catastrophic thought patterns and feelings of helplessness and hopelessness.

### **How can we achieve the evidence-based use of ECT?**

Patients should generally be informed adequately about ECT early on, regardless of the treatment setting, their place of residence and the particular conditions of their previous treatment. At the same time, sufficient ECT capacity should be widely available without excessive waiting times. The four countries named above have different deficits in these

areas which the participating scientific associations are currently analysing in detail through a survey.

The current training for specialists in Germany, Italy and Switzerland does not guarantee that all patients receive adequate information about ECT. In Austria, ECT is at least part of the theoretical teaching. In Germany the currently valid professional training regulations stipulate that case seminars on 'pharmacological and other somatic treatment procedures with practical tutorials' are to be performed, without explicitly naming ECT. Deficits are inevitable because many psychiatric hospitals do not offer this treatment. Structured, theoretical and practical training in ECT should therefore be integrated into specialist training. Furthermore, the procedure must be included in the learning materials and lectures for medical students.

Until these measures take effect, it is important to inform potential referring physicians about the procedure through courses and other media. Congresses offer a very good opportunity for providing information, but local events at ECT centres can also serve as possibilities to offer further training. Appropriate representation of ECT in textbooks and treatment algorithms is especially important.

Despite intensive research efforts focussing on the mode of action of ECT (Swartz 2009), the relationship between the epileptic seizure and the improvement of psychiatric disorders is not yet clarified. It is likely that knowledge about the mode of action would increase the acceptance of the treatment method. Further scientific efforts to clarify the mode of action are therefore urgently needed.

### **Measures for an evidence-based application of ECT**

- Provision of early and adequate information to patients, relatives and caregivers
- Structured theoretical and practical training for doctors in continuing education
- Theoretical and practical insights for medical students
- Provision of continuing education at psychiatric congresses
- Appropriate representation in textbooks and treatment algorithms
- Intensive research on the mode of action

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