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ECT is the most effective treatment for severe depression; however, not all patients with depression respond to this treatment. Accurate information about the outcomes of patients who receive ECT is needed to inform and guide patients when deciding between different treatments options. However, recent studies of the outcomes of patients who receive ECT in routine clinical practice are scarce. Therefore, it is unclear how the outcomes of in routine clinical practice compare with the positive results of ECT reported in clinical trials.

Moreover, even when patients respond to ECT, it is challenging to sustain this improvement. Despite the use of continued pharmacotherapy to prevent relapse and recurrence, approximately half of patients relapse within one year. Retrospective studies indicate that continuation ECT combined with pharmacotherapy could effectively reduce the high relapse rates; however, only one small randomised trial has explored this treatment combination.

Therefore, the aims of the thesis were to identify clinical characteristics that predict the outcomes of depressed patients treated in clinical practice by ECT, and to elucidate the effectiveness of continuation ECT at preventing relapses and recurrences.

The studies included a retrospective chart review, three studies based on a quality register for ECT, and a randomized controlled trial (RCT) examining the effectiveness of continued ECT.

The results show that the short-term response rate to ECT is relatively high in all patient subgroups, and is particularly high in older patients, inpatients and patients with severe depression. Patients often regain occupational functioning after ECT; however, this takes a considerably longer time than that required for symptom relief. Nevertheless, the relapse and recurrence rates of patients are high in the years after ECT. Continuation ECT and lithium treatment can be combined with antidepressants to reduce the risk of relapse and recurrence. Further studies are required to define the indications for continuation ECT and lithium treatment.