Electroconvulsive Therapy for People with Schizophrenia: Updating a Cochrane Systematic Review for Two Decades

Farhad Shokraneh, Diarmid Sinclair, Claire B Irving, Ghazaleh Aali

Cochrane Schizophrenia Group, Institute of Mental Health, Division of Psychiatry and Applied Psychology, School of Medicine, University of Nottingham

Read et al¹ cite a narrative literature review in 2010 to support a claim on minimal support for effectiveness of electroconvulsive therapy (ECT) for people with schizophrenia. However, evidence from Cochrane reviews is also available:

2000: This Cochrane review² finds some evidence for backing the use of ECT for people with schizophrenia to relieve symptoms but the effects may only be short term. For people who have limited response to medication alone, ECT may be a beneficial addition to antipsychotics "but the evidence for this is not strong".

2002: An update of the same review³ has similar conclusions, reporting no evidence to negate the use of ECT for patients with schizophrenia. It also finds limited evidence to support its indication, mainly in combination with antipsychotics for patients who have limited response to medication alone.

2005: A further update to the same review⁴ again finds the evidence indicates ECT + antipsychotics may be an option for people with schizophrenia, in particular, when rapid global improvement and of symptoms relief is preferred. This is similar for patients with schizophrenia who have limited response to medication alone. Although the reviewers conclude the early beneficial effect may only be short-term, they again mention there is no clear evidence to counter its use for people with schizophrenia.

2019: in 2015, Cochrane published a sibling protocol⁵ to specifically assess the effectiveness of ECT for people with treatment-resistant schizophrenia. The review authors received support from NIHR Cochrane Incentive Award Scheme and the review has been submitted for publication.⁶

Since this review is not published yet, we quote exactly from the unpublished in press version: "We found moderate-quality evidence that adding ECT to standard care has a positive effect on clinical response when compared with standard care. The currently available evidence was too weak to clearly demonstrate that adding ECT to standard treatment is associated with benefits or harm for our other outcomes. There is also a lack of evidence on the effects and safety of adding ECT to standard care compared with sham-ECT or additional antipsychotics and inadequate evidence regarding the use of ECT alone".

Of note, what is common in all versions of these Cochrane reviews is that in spite of seven decades of clinical use of ECT for people with schizophrenia, there still is a lack of strong and adequate evidence regarding its effectiveness and the question 'should we stop using electroconvulsive therapy?' is currently unanswered for people with schizophrenia. High-quality evidence is required to support a more certain conclusion.

Funding: National Institute for Health Research (NIHR) has supported 2019 edition of this review through the 'NIHR Cochrane Incentive Scheme 2017', and the review team has received 5000 GBP grant to finish this review (grant number 17/62/26).

Citation: Shokraneh F, Sinclair D, Irving CB, Aali G. Electroconvulsive Therapy for People with Schizophrenia: Updating a Cochrane Systematic Review for Two Decades. BMJ. 26 February 2019. https://www.bmj.com/content/364/bmj.k5233/rr-8

References

- 1. Read J, Cunliffe S, Jauhar S, McLoughlin DM. Should we stop using electroconvulsive therapy? BMJ 2019; 364: k5233. DOI: 10.1136/bmj.k5233
- 2. Tharyan P, Adams CE. Electroconvulsive therapy for schizophrenia. Cochrane Database Syst Rev. $\underline{2000}$;(2): CD000076. DOI: 10.1002/14651858.CD000076
- 3. Tharyan P, Adams CE. Electroconvulsive therapy for schizophrenia. Cochrane Database Syst Rev. <u>2002</u>; (2): CD000076. DOI: 10.1002/14651858.CD000076
- 4. Tharyan P, Adams CE. Electroconvulsive therapy for schizophrenia. Cochrane Database Syst Rev. <u>2005</u>; (2): CD000076. DOI: 10.1002/14651858.CD000076.pub2
- 5. Sinclair DJM, Ellison JMA, Adams CE. Electroconvulsive therapy for treatment-resistant schizophrenia. Cochrane Database Syst Rev. 2015; (9): CD011847. DOI: 10.1002/14651858.CD011847
- 6. Sinclair DJM, Zhao S, Qi F, Ellison JMA, Nyakyoma K, Kwong JSW, Adams CE. Electroconvulsive therapy for treatment-resistant schizophrenia. Cochrane Database Syst Rev. 2019; CD011847 [in press]