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Electroconvulsive therapy in patients with intellectual disabilities for concurrent psychiatric symptoms: a systematic review and case report.

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Background:

Electroconvulsive therapy (ECT) is an effective treatment for a variety of psychiatric symptoms, but its use in patients who have intellectual disability (ID) is less frequently explored.

Purpose:

This systematic review and case report aims to examine the use, outcomes, and other aspects of ECT for treatment of various psychiatric symptoms in patients with ID.

Objectives:

1. For which symptoms did people with ID receive ECT?
2. What were the treatment outcomes?
3. What were adverse effects or events?
4. Describe a clinical case

Methods: Systematic Review

•Search: PubMed, EMBASE, PsychINFO, MedLINE (196 articles found)
•Inclusion criteria: have diagnoses of ID, undergone ECT, and answered one or more of the objective questions. All ages and genders included
•Exclusion criteria: article dated before 2000, study not in English, non-human subjects, diagnosis of ID unclear or labeled as “borderline ID”
•60 articles included
•136 articles excluded
•Total number of patients included: 125

Case Report

Background:

- Adolescent male with a history of moderate ID and severe autism spectrum disorder
- Developed bipolar disorder at approximately age 10
- Had limited response to medications
- Started ECT at age 13 for aggression and self injury during mood episodes
- Consent for ECT provided by parents acting as substitute decision-makers
- Medications at the time of therapy included lithium carbonate 750 mg twice daily, valproic acid 1000 mg nightly, lurasidone 40 mg twice daily, olanzapine 15 mg daily, olanzapine 5 mg as needed, risperidone 3.5 mg daily, and clonazepam 0.5 mg daily

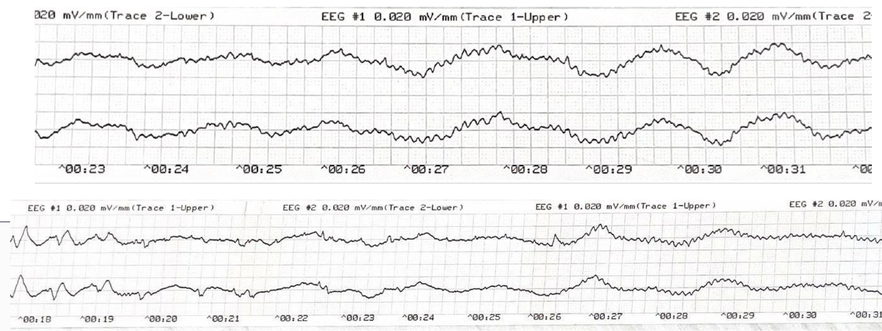
Treatment Course:

- Bitemporal ECT
- Brief pulse width
- Anesthetic medications included propofol, remifentanil, and succinylcholine.
- Seizures were good quality and duration
- Received 15 index treatments, 3 times per week, and was then continued on maintenance ECT

Treatment Course:

- No significant adverse effects
- Good response to treatment
- Alpha waves noted consistently on EEG after seizure suppression

Case EEG Strips:



Results

For which symptoms did people with ID receive ECT and what were the treatment outcomes?

Psychosis	• 10/12 patients improved
Mood symptoms	• 18/19 improved
Self Injury & Aggression	• 19/19 patients improved
Catatonia	• 69/75 patients improved

What were the adverse effects or events?

- Adverse effects were few and ranged in type and severity.
- Most adverse effects were mild and transient
- Examples included post-ECT agitation (n=1), prolonged or tardive seizures (n=2), pneumonia (n=1), manic symptoms (n=2), anterograde amnesia (n=1), delirium (n=2), fever and aggression (n=1), and flat facial expression (n=2).
- The safety profile was generally favorable.

Discussion

- This study highlights the potential benefits of ECT in managing psychiatric symptoms in patients with ID
- Adverse effects and events were uncommon
- Limitations of this study included large heterogeneity in patients, heterogeneity in outcome measures, and included studies were typically case reports or small cohort studies.
- Further research is needed to understand the long-term efficacy and safety of ECT and unique EEG considerations in this population.