ECT FOR SEVERE MOOD DISORDERS
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NED H. KALIN, MD
Hedberg Professor and Chair, Department of Psychiatry
Director, HealthEmotions Research Institute
University of Wisconsin – Madison
Madison, WI
NED H. KALIN, MD

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W. VAUGHN McCALL, MD, MS

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LEARNING OBJECTIVE 1
Counsel patients on the indications for and efficacy and safety of ECT for treatment of severe mood disorders
LEARNING OBJECTIVE 2

Counsel patients who are candidates for ECT on the efficacy and safety of ECT for the treatment of severe mood disorders.
To receive CE credit for this activity, participants must complete the post-test and evaluation online at neuroscienceCME.com/test
ELECTROCONVULSIVE THERAPY (ECT)

- 1938: Developed in Rome for the treatment of schizophrenia
- By 1940: Introduced in the United States and England
- Currently it is primarily a treatment for nonpsychotic disorders

CURRENT PROCEDURE

- IV barbiturate agents for light general anesthesia
- IV muscle relaxant for temporary paralysis
- Finely controlled electric current delivered to the brain via scalp electrodes
- Controlled seizure is induced


CANDIDATES FOR ECT

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  - Symptom severity that
    - Causes severe distress
    - Is associated with marked psychosocial impairment
    - Significantly heightens suicide risk
    - Is due to catatonic or psychotic features

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    - Is due to catatonic or psychotic features
  - Symptoms have not been controlled with pharmacotherapy

ECT CAN PRODUCE A RAPID EFFECT

- Antisuicide effect is rapid, perhaps as soon as after 1 ECT session
- Rapid effect of symptom relief also seen in patients who are
  - Catatonic
  - Refusing to eat
  - Experiencing manic excitement and confined to seclusion

ECT SIDE EFFECTS

- Before ECT session: anesthesia and muscle relaxants
  - Orthopedic injury (i.e., skeletal fracture) is very rare today
- Currently
  - Cognitive side effects
- Most patients tolerate ECT well
PRE-ECT WORK-UP

- No need for EEG or brain imaging
- In younger patients who have no medical comorbidities, obtain
  - Serum electrolytes
  - Electrocardiogram (EKG)
  - Anesthesiology consult
- In older patients or more complicated cases
  - Same as above, plus in-depth cardiovascular history and risk factor assessment

NUMBER OF ECT TREATMENTS

- **Course of therapy**
  - Low range: 5 – 6 treatments (~ 2 weeks)
  - High range: 12 – 15 treatments (~ 4 weeks)

- Difficult to estimate number of treatments required at the outset

- In United States centers, typical schedule is 3 times/week on alternating weekdays

AMNESIA WITH ECT

- Advancements in ECT have resulted in reduction in side effect of amnesia
  - Stimulation of right hemisphere only
  - Use of ultra-brief pulse

- Some degree of retrograde amnesia should be expected
  - Spotty amnesia

DURATION OF ECT EFFECT

- Effect is temporary
- No evidence that it changed the course of mood disorders in a fundamental way

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NEED FOR PROPHYLAXIS AFTER ECT

Antidepressant + lithium is the most effective pharmacological strategy, even in patients with unipolar depression

- Data support: Randomized controlled trial with patients post-ECT, randomized to placebo or nortriptyline or nortriptyline + lithium, patients followed 6 months
  - Placebo: 90% relapse rate
  - Nortriptyline: 70% relapse rate
  - Nortriptyline + lithium: 40% relapse rate

MAINTENANCE ECT

- If effective acutely, is generally a useful maintenance strategy
- Requires strong patient commitment
- Less frequent treatments with longer intervals than acute ECT
  - Goal is to reach ~ 1 treatment/month

ECT: ENABLING OR DISABLING THERAPY?

- Quality of life (QoL) measured with the Short-Form Health Survey (SF-36)
  - Immediately post-ECT, ~ 90% will report a net improvement in QoL
  - 6 months post-ECT, the majority (80%) still report a net improvement in QoL

ECT is an enabling therapy, leaving patients better off than they were before ECT

The ideal candidate is one whose illness is severe and treatment-resistant.

The antisuicide effect seen with ECT is generally rapid; the overall effect of ECT is temporary.

The number of treatments needed for a course of therapy is difficult to estimate at the outset, but the range is 5–15 treatments.

Advancements in ECT have resulted in reduced side effect of amnesia.

The most effective post-ECT prophylaxis strategy is antidepressant plus lithium therapy.

Maintenance ECT is appropriate for select candidates.

ECT has been shown to improve quality of life.
CLINICAL RESOURCES

- Fact Sheet from NINDS (NIH)

- 2010 APA Treatment Guidelines on MDD

- Mayo Clinic ECT video

- Patient brochure from the Depression and Bipolar Support Alliance (DBSA): Treatment Technologies for Mood Disorders
  - http://www.dbsalliance.org/pdfs/EmrgTechsBro09.FINAL.pdf
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