Electroconvulsive Therapy (ECT) for the Management of Extreme Behavioural Disturbance in Patients Living With Dementia.

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JACK NICHOLSON

ONE FLEW OVER THE CUCKOO'S NEST

Current management

- Behavioural management strategies.
- Identification and treatment of co-morbidities.
- Medications.
- Institutionalization.
- ECT.

Challenging behaviours that may lead to a consideration for ECT

- Extreme agitation.
  - Associated physical aggression
  - Hyper-motor agitation
- Resistive to pharmacological interventions.
- Risk of self harm due to extreme agitation.
- Risk of harm to others to extreme agitation.
- Co-existing depression.

Consideration for ECT use in patient's with severe agitation?

- Is ECT an appropriate therapy option?
- Have *all* behavioural management strategies been explored?
- Have *all* medication options been explored?

Decision for ECT Therapy

- Geriatrician - in association with Multi-Disciplinary Team Conference, and failure of conventional therapy.
- Psychiatric consult.
- Patient consent – if possible, but not usually possible.
- Next Of Kin/Enduring Power Of Attorney.
  - informed consent
- Psychiatric – 2nd opinion.
- Independent tribunal - Qld: Mental Health Act 2000.

Is it safe?

- Statistically ECT is the safest procedure performed under GA.
  - Mortality rate 0.002%
- Slight possibility of medical side effects.
- Possible cognitive side effects.

Mr NK

- 72yo, Alzheimer's Dementia with Lewy Body features
- 2 hospitals, 3 respite facilities.
- Admission Sept 5th 2006 – Feb 1st 2007
- Hx anxiety/depression, CABG, HTN, ? prostate cancer
- Severe neuroleptic hypersensitivity, parkinsonism, ? Anticholinergic delirium.
- After 6 mths the family were so distressed they were considering nursing home placement.

On Admission:

- Severe psychomotor agitation.
- Poor vocalization.
- Physical/verbal aggression, directed at family/patients/staff.
- Dystonia – pain from muscle spasm.
- Disruption to sleep/wake cycle.
- Falls risk - exhaustion, unsteady gait.
- Poor food/fluid intake.
- Inappropriate urinating, disrobing.

ECT

- Lengthy process:
  - Family were initially reluctant to consent
  - Had seen Mr NK react so negatively to previously tried therapy options.
- Approval for 16 treatments.
  - 10 inpatient, 3 outpatient

Outcome

- Dramatic improvement.
- Resolved restlessness.
- Sleeping at night.
- Communicating.
- Eating.
- Playing violin, cards, participation in DT, watching TV, reading newspaper.
- Resumed r/ship with wife.

- Improved cognitive testing – Mini Mental State Exam (MMSE)
  - Pre admission 20/30 (7/06)
  - Pre ECT 0/30 (12/06)
  - Pre Discharge 19/30 (2/07)
- Discharged home with wife.

Family Observations

- (16/12) Pre ECT: Dad was agitated and belligerent towards staff. He is not sleeping and obsessively wanting to walk. Not very responsive to conversation.
- (29/12) 3rd ECT: Dad was better again than last time. He was steady on his feet, not agitated, and in good spirits.
- (29/1) 10th ECT: Dad was generally positive and calm. He is trying to be patient while waiting to leave hospital.

3 Further admissions

- Admission 5/07 with misidentification & agitation.
  - Anti-psychotic – malignant neuroleptic syndrome
  - ECT
    - approved for 12 treatments
    - Required only 9
- Admission 12/07 with misidentification with associated aggression towards wife
- Admission 10/08 with episode of aggression to wife.

Current Situation

- Home since Jan '09
- Cared for by wife with community support
  - Day respite & in home respite
  - Supportive family
  - Outreach support from CAM Unit

Mrs GD

- 62yr old. Lewy Body Dementia.
  - Diagnosed as Alzheimer's 2004, DLB 2008
- Admitted Jan '07.
- Rapidly progressive cognitive impairment.
- Husband no longer able to manage behaviours at home.

On Admission

- Severe Agitation
- Hyper-motor activity
- Dystonia
- Pain – muscle spasms
- Aggression – especially associated with hygiene assistance.
- No longer able to recognise her family
- Insomnia
- Grinding teeth
- Limited vocalisation
- Screaming & probable hallucinations
- Appeared tormented.

Treatments

- Behaviour Management Strategies:
  - Low stimulation environment
- Pharmocological interventions:
  - Donepezil, Zololf, Aricept, Galantamine, Respirodone, Olazapine, Oxazepam, Fluoxetine, Rivastigmine, Queltiapine
  - Limited, short term or no effect.
- Worsening agitation, aggression, dystonia & distress.

ECT

- Husband consented immediately.
  - Put in contact with wife of Mr NK

- **First treatment series –**
  - Approval for 12 treatments over 6wks
  - Initially (first 2 treatments) increase in agitation
  - Followed by obvious & sustained improvement

Improvement in behaviours

- Able to sit still for up to 30 mins.
- Smiling.
- Able to verbally respond "I'm fine" "No thanks"
- Recognising family.
- Mostly co-operative with ADL's.
- Ravenous appetite.
- Sleeping well.
- Improved posture.

- Trial of cessation of ECT (twice)
  - OK for approx 14 – 18 dys, then behaviours started to escalate again.

- Maintenance ECT – fortnightly.
- Discharged to Registered Aged Care Facility (RACF).

Re-admission Jan '09

- RACF staff reporting that ECT no longer seemed to be helping.
- Chart r/v of ECT treatments revealed poor seizure result over corresponding period.
- Oxazepam ceased, ECT voltage increased
  - Immediate improvement back to previous level of functioning.
- D/c back to RACF.

Current Situation

- Lives in RACF.
- Fortnightly ECT as out patient.
- Supportive family.

Conclusion

- ECT as a Therapy option for challenging behaviours associated with severe dementia is:
  - Safe
  - Effective
  - Ethical
- Increased "placability"
- As yet few scientific studies/papers written.

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