Maintenance ECT for the treatment and resolution of agitation in Alzheimer's dementia

L'ECT di mantenimento nel trattamento e risoluzione dell'agitazione nella demenza di Alzheimer

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Summary

Background

Behavioural and psychological symptoms of dementia (BPSD) refer to the distressing, non-cognitive symptoms of dementia and include agitation or restlessness; wandering and non-specific behaviour disturbance e.g. hoarding; verbal or physical aggression; anxiety; depression; psychosis, delusions, hallucinations; repetitive vocalisation, cursing, screaming and swearing; sleep disturbance; shadowing; sundowning.

Clinical case

We report the case of a patient with advanced stage Alzheimer's dementia with severe BPSD not respondent to several trials of antipsychotis, anxiolytics and mood stabilizers. The patient was treated with acute and maintenance bilateral ECT.

Conclusions

This case represents a successful use of acute and maintenance ECT in the treatment of BPSD, in particular psychomotor agitation, associated with Alzheimer's dementia. According to our experience, it is important to manage this psychiatric manifestations with ECT, especially in those cases in which the psychopharmacological treatment alone does not give satisfactory results in clinical improvement.

Key words

Electroconvulsive therapy • Dementia • Agitation

Behavioural and psychological symptoms of dementia (BPSD) refer to the distressing, non-cognitive symptoms of dementia. BPSD include symptoms of disturbed perceptions, thought content, and changes of mood or behaviour compared to baseline [1]. The spectrum of BPSD includes agitation or restlessness; wandering and non-specific behaviour disturbance, e.g. hoarding; verbal or physical aggression; anxiety; depression; psychosis, delusions, hallucinations; repetitive vocalisations such as cursing, screaming and swearing; sleep disturbance; shadowing; sundowning [1].

BPSD are observed in up to 90% of patients with dementia: agitation and aggression are present in 60-80% of subjects with Alzheimer disease [2].

Primary intervention, after failure of non-pharmacological measures, is the use of antidepressants, mood stabilisers and antipsychotics [3 4]. Unfortunately, there are few controlled trials in patients with dementia, and atypical antipsychotics have been shown to increase overall mortality; moreover, patients often are unable to tolerate the side effects of these medications [5].

Electroconvulsive therapy (ECT) has been shown to be effective in the treatment of BPSD [6].

Herein, we report a case of successful use of ECT as acute and maintenance treatment for BPSD in a patient suffering from advanced stage Alzheimer's dementia. Mrs E.S. is a 76-year-old white female, with negative psychiatric history, but a clear hyperthymic temperament and a 3-year history of severe Alzheimer's dementia. Psychiatric family history was positive: the older daughter had hyperthymic temperament and the younger suffered from severe social phobia and later developed an episode of psychotic mania, treated successfully with lithium and olanzapine. Mrs E.S. was admitted to the psychiatry unit for confusion, severe psychomotor agitation and restlessness, insomnia, mood lability with weeping and anger, repetitive vocalisation, cursing and swearing. Because of her behaviour, the management of the patient by relatives and a visiting nurse at home failed (Activities of Daily Living, ADL = 0). Therapeutic trials of trazodone, promazine, zuclopenthixol and valproic acid were ineffective. On admission, medications included quetiapine 800 mg/day, lithium 900 mg/

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day, valproate 1,000 mg/day, clozapine 200 mg/day and niaprazine 30 mg/day.

Cognitive screening with the Mini Mental State Examination (MMSE) was not possible because of agitation. Laboratory exams were normal. A head computerized tomography (without contrast) showed diffuse cortico-subcortical atrophy with secondary ventricular enlargement. The patient was treated with a course of 3 applications of ECT with bitemporal lead placement, with resolution of confusion, psychomotor agitation and behavioural disturbance. At home, the patient continued therapy with quetiapine and prometazine. In the next 7 months, the patient was admitted to the hospital three times because of behavioural disturbances, and was treated with a total of 8 applications of ECT (6 bitemporal, 2 bifrontal). Since the effect of ECT was rapid and effective, but short-acting, with the patient relapsing approximately every 2 months, we started maintenance ECT (2 applications every 45 days) for the next 6 months. During maintenance ECT, the patient showed relapses and remained in good behavioural control. Quetiapine was tapered to 50 mg/day and continued for the following 2 years. No further ECT was indicated. The patient died at the age of 80 years for progressive kidney failure.

Discerning the aetiology of behavioural and mood changes in the setting of advanced dementia is difficult: agitation and aggression may be the result of impairment of cognitive functioning, psychosis, anxiety, mania, agitated depression, physical illness or discomfort, or a side effect of medical therapy. Although depressive disorders remain the most common indication for ECT in the elderly, a growing body of literatures has identified ECT as an effective intervention for severe refractory agitation in patients with dementia [7]. We believe that randomised, controlled trials with ECT are necessary to further assess its efficacy for this indication.

Conflict of interests

None of the authors have anything to declare.

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