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Electroconvulsive Therapy Usage in Geriatric Patients in A Tertiary Care Hospital : A Retrospective Chart Analysis

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ABSTRACT

Background: Electro Convulsive Therapy (ECT) is used in large number of indications in adult populations, but there is lack of data for use of ECTs as a treatment modality in the geriatric age group.

Objective: Given the prevalence and severity of psychiatric disorders in geriatric age group, we decided to carry out a retrospective audit of ECTs given in this age group in last one year in a tertiary hospital.

Methods: The ECT records of last one year of geriatric patients (age group of 60 years and above) were studied and the socio-demographic data, indications, number of ECTs given, anesthetic agents used and side effects were recorded. The data was then pooled, tabulated and subjected to statistical analysis.

Results: In our audit, we found that ECTs were given to 22 geriatric patients in last one year. 63.64% patients suffered from schizophrenia and other psychotic disorders while 36.36% patients had mood disorders. A large number of concomitant medication was administered and no side effects were noted.

Conclusions: Thus ECT is a useful and safe treatment modality in geriatric age group patients and must be used when needed.

KEYWORDS: ECT, older adults, geriatric patients, indications

Introduction

ECT has been used for over 70 years for treating psychiatric disorders like severe, refractory depression, certain cases of schizophrenia and catatonia (1). The efficacy of ECT in older adults is well established for the treatment of severe major depression, particularly where there are concerns about severe anorexia or suicidality or where other treatments have failed; moreover, the treatment is generally safe and well tolerated (2). Concerns about cognitive worsening in older patients following ECT or in those with dementia and depression have been unfounded, with several studies showing improved cognition associated with the mood improvement from ECT (3). Intolerance to antidepressants, cardiovascular diseases, and the resultant morbidity and mortality associated with traditional antidepressant use, are all age-related, thereby increasing use of ECT, which is believed to pose less serious cardiovascular risks (4-5). Further, age-related vulnerability to the complications of severe depression, such as dehydration, malnutrition, weight loss, and the effects of sustained inactivity, mandate speedy recovery, also leading to increased referral for ECT in elderly patients (6). A large number of recent studies and reviews have demonstrated good efficacy and safety rates for the use of ECT in elderly patients with psychiatric disorders (7-8).

The aims of the following study was to study the indications of giving ECTs in elderly patients and to assess the safety and efficacy of ECTs in this group while studying the complications and side effects related to ECTs.

Methodology

This was a retrospective audit of the ECT records carried out at the tertiary care hospital. The ECT treatment cards of the geriatric patients (age group 60 years and above) of last one year from 1st June 2012 to 31st May 2013 were studied and data was collected. Information regarding socio-demographic data, indications for ECT, anesthetic agents and muscle relaxants used, number of ECTs given, medication history and any adverse events were collected and tabulated. The data was collected and tabulated in Microsoft Excel sheet. Further analysis was done using descriptive statistics and percentages.

Results

A total of 22 geriatric patients in the age group of > 60 years were given ECTs in last one year. All of them were given Modified ECTs with usual doses of anesthetics (propofol at dose of 0.5 mg/kg body weight) and muscle relaxants (succinylcholine at dose of 0.5 to 1 mg/kg body weight). The ECTs were given with the Medicaid ECT device delivering brief pulse stimulation with constant current at 800mA with 125 pulse/second frequency and pulse width of 1.5ms. The patients generally received ECTs thrice weekly initially and later on twice weekly followed by once a week ECTs. Majority of them belonged to age group of 60-75 years (90.9%).Only 2 patients were above 75 years of age. All the patients were males. Out of 22 patients, 15 were Hindus and 7 were Muslims. [Table 1].

14 of them were suffering from schizophrenia and other psychotic disorders. 8 of them had mood disorders with 6 having major depression and 2 having bipolar depression. [Table 2]. Out of 22 patients all of them received 8-14 ECTs.

Discussion

The aim of our audit was to see the use of ECTs in geriatric psychiatry patients. 22 patients had received around 200 ECTs in last one year. Studies by various authors state that psychotic disorders and major depression are the main indications for ECTs in older adults (9-10). None of the patients developed any side effects. The patients were on an array of concomitant antipsychotics and antidepressants that did not affect the course of ECTs. Thus we conclude that ECTs can be safely used in elderly patients from our audit which included 22 patients.

Table 1:

Age (in years)	No. of patients (N=22)
60-75 years	20 (90.9%)
> 75 years	2 (9.1%)
Religion	No. of Patients (N=22)
Hindu	15 (68.19%)
Muslim	7 (31.81%)

Table 2:

Diagnosis	No. of patients (N= 22)
Schizophrenia and other psychotic disorders	14 (63.64%)
Mood disorders	8 (36.36%)

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