

“A rare Urinary Complications Following Electroconvulsive Therapy: Case Report”

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Abstract:

Electroconvulsive therapy (ECT) is an important method in psychiatry, which is the most efficacious treatment in severely depressed elderly patients. Obsessive-compulsive disorder (OCD) is a highly debilitating condition which leads to personal distress or social dysfunction. As in other medical or surgical procedures, clinicians may encounter cases in which ECT is administered to patients with various kinds of complications. We are going to report a case of urinary complications following electroconvulsive therapy from about 8 years ago in a female patient with OCD and a Major depression following that. A 49-year-old female and obese (83 kg) patient presented to psychiatrist with severe obsessive-compulsive disorder (OCD) for cleaning and Major Depression a while after presentation of her OCD. She underwent Electroconvulsive therapy (ECT) about 8 years ago for 10 sessions in a 20 days period and after eighth session Urinary Incontinency (UI) and Frequency with mild headache and amnesia were reported. All organic disorders and paraclinic assessments were normal. Urinary Tract infection and Conversion disorder were also ruled out. In summary of discussion and analysis of other investigations this patient's urinary complaint seems more likely to be due to other reasons.

Keywords: Electroconvulsive therapy (ECT), Obsessive-compulsive disorder (OCD), Complications, Urinary Incontinency (UI), Frequency

Introduction

Electroconvulsive therapy (ECT) is an important method in psychiatry, which is primarily indicated for mood disorders and schizophrenia (1) In the last decades, ECT has undergone various revisions and improvements such as safety profile, electrical parameters, using unilateral and bifrontal electrode placement, and etc. As in other medical or surgical procedures, clinicians may encounter cases in which ECT is administered to patients with various kinds of complications. Complications can occur, although infrequent, may include fractures and/or dislocations or adverse cardiovascular, toxic or allergic reactions to intravenous medications. The major complications from ECT are cognitive side effects. While immediate side effects from ECT are rare except for headaches, muscle aches or soreness, nausea, and confusion that usually disappear during the first few hours following the procedure, some more long lasting complications like amnesia, arrhythmias, physical complications (e.g.: spinal or other fractures), and etc, are also reported (2).

Obsessive-compulsive disorder (OCD) is a highly debilitating condition with a lifetime prevalence of 2% to 3%, (3,4) Obsessions or compulsions which lead to personal distress or social dysfunction contain approximately 1% of adult men and 1.5% of adult women. About half of these adult patients have an episodic course and rest of them have continuous problems (5).

ECT is not being used as a first-line treatment option. ECT also has been used in the treatment of refractory OCD (6). Nevertheless there is a report about a 48-old women treated for depression which developed successively psychotic symptoms (ideas of reference, psychotic worries), negative symptoms (blunted affect, impoverished thinking, difficulties in planning), and obsessive-compulsive symptoms (mainly repeating rituals, avoidance behaviour, collecting and hoarding). Since she did not respond to combined treatment with neuroleptics and high dose selective serotonin re-uptake inhibitors it can be determined that although maintenance ECT is not an approved therapy in OCD but might be an option in pharmacotherapy refractory cases of comorbid OCD and schizophrenic/schizoaffective disorder (7).

We are going to report a case of urinary complications following electroconvulsive therapy from about 8 years ago in a female patient with OCD and a Major depression following that.

Case Presentation

A 49- year-old female and obese (83 kg) patient whom is divorced due to her infertility, presented to psychiatrist with severe obsessive- compulsive disorder (OCD) for cleaning which made her a huge amount of distress and dysfunction from about 19 years ago. She showed Major Depression a while after presentation of her OCD. She has complete insight for her problem. She was never symptom free and always was unpleasant. Before ECT , she stimulated urethra, because she had clean-contamination obsession, but Post ECT she never manipulated this region. She underwent Electroconvulsive therapy (ECT) about 8 years ago for 10 sessions in a 20 days period. Her mood disorder had shown positive response. After eighth session Urinary Incontinency (UI) and Frequency with mild headache and amnesia were reported. She referred to urologist and nephrologist which urologic examinations were normal and paraclinicassessments and urodynamic tests did show no abnormality and organic problem had been ruled out. MRI showed no abnormality. Ultrasonography assessments revealed Smaller uterine size than normal. Her urinary complications were not related to her OCD relapse. Urinary Tract infection and Conversion disorder were also ruled out. Follow ECT, urinary incontinence was continuously.

Her infertility was due to Amenorrhea, and unovulation which were not responded to estrogen and progesterone therapy. She had not Hypertension, Seizure, Hyperlipidemia, Diabetes Melitus, Thyroid Dysfunction, Seizure, Epilepsy and sleep disorder and all of them were ruled out too. She used fluvoxamine 150 mg daily, propranolol 20 mg BID, clonazepam 1 mg Qhs before ECT. For urinary complications prescribed 5 mg oxybutynin daily and then 2mg tolterodine daily was prescribed, but

response to treatment was poor. She has positive familial history for OCD (in her younger sister which is milder) and MDD (her mother). She was followed for 8 years that she did not showed any recovery for her urinary complaints.

Discussion:

Electroconvulsive therapy (ECT) is recognized as a highly effective and safe treatment in psychiatry. It may has about 1 death for every 10,000 patients treated. The most common side effects are headache, muscleaches, transient confusion, and memory difficulties, with the latter usually mild and transient (2). ECT also has some rare complications such as cardiac complications (e.g. Arrhythmias and Myocardial Infarction), Status Epilepticus, Cerebral hemorrhage and etc (2). In other hand ECT had great therapeutic effects on some psychiatric disorders (9).

Despite all of these reported complications our investigations and searches among articles and reports did not lead to finding and documents about urinary complications following ECT. The etiology of bladder over activity is variable. By careful interpretation of clinical investigations and urodynamic evaluations, refinement of the diagnosis is possible (10). Interestingly in an investigation performed by Dwyer et al., following results had been revealed: Obesity was significantly more common in women with genuine stress incontinence and detrusor instability than in the normal population and there was no significant difference between obese and nonobese women in any of the urodynamic variables measured in the two incontinence groups (11). Finally in summary this patient's urinary complaint seems more likely to be due to other reasons.

Conclusion:

Identify, understanding and management of ECT complications prevent unnecessary treatment discontinuation due to manageable complications. We also suggest that all clinicians who encounter patients undergoing ECT must be vigilant for serious complications so that they can be recognized promptly and steps can be taken to treat them appropriately and prevent recurrence during future ECT sessions. Finally in ECT like other medical procedures we must assess benefits against complications and do what is more beneficial for patient.

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Date of submission: 22 February 2013

Date of Provisional acceptance: 02 March 2013

Date of final acceptance: 24 March 2013

Date of publication: 03 April 2013

Source of support: Nil; Conflict of Interest: Nil