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Reminder of important clinical lesson

Efficacy of ECT in severe obsessive-compulsive disorder with Parkinson's disease

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Summary

A man in his 60's was admitted following a serious suicide attempt secondary to severe obsession with bowel movements and severe depression. He had multiple previous admissions with similar presentations and responded partially to psychotropic medications. It was transpired that obsessive compulsive disorder preceded depression and being overwhelmed with this obsession related to bowel movement, he decided to end his life. Electro-convulsive therapy was commenced with good results. His obsessive-compulsive disorder came under control to a greater extent and there was an improvement in his mood.

BACKGROUND

Electro-convulsive therapy (ECT) normally does not play a role in treatment of obsessive-compulsive disorder (OCD). Interestingly, in this case, ECT was able to bring significant improvement in the symptoms of OCD as the psychotropic medications failed to bring the desired effect. The fact that ECT was helpful in the treatment of this patient, we thought it would be worth and important to share the information with the readers.

CASE PRESENTATION

A man in his 60's was found unresponsive at home, ingested unknown amounts of clonazepam and sodium pentobarbital which he had purchased online. 'I had given up all hope of being treated properly for my bowel problem'.

The patient reported having been preoccupied with his bowel movements since childhood and that 'serious constipation began' approximately 30 months before the overdose. He reported persistent distressing preoccupation with his bowels and having taken multiple laxatives in order to initiate bowel movements. His wife reported that he was abusing a magnesium citrate product regularly, producing 18 bowel movements per day along with frequent abdominal pain. He was being followed regularly by a psychologist for his obsessions with his bowels and participated in behavioural therapy regularly. He had recently developed depressed mood, insomnia, decreased energy, anhedonia and feelings of hopelessness and helplessness.

He had been hospitalised with similar symptoms and a seroious overdose of lorazepam, clonazepam and alcohol 2 years earlier. He improved on medication and was discharged on citalopram 10 mg daily, quetiapine 400 mg QHS, clonazepam 0.125 mg QAM plus 0.25 mg HS, triiodothyronine 5 mcg twice daily, acetyl salicylic acid 81 mg daily and ezetimibe 10 mg daily and was told to follow-up with his psychiatrist in 2 weeks.

He was hospitalised 1 year later with similar symptoms (ie, about 18 months before his most recent presentation following another overdone of zopiclone, clonazepam and alcohol. He noted that his symptoms had worsened since the onset of decreased mobility over the previous 3 months. He was diagnosed with Parkinson's disease at that time. He had also recently been prescribed lactulose, psyllium and sodium docusate because of constipation and had recently seen a psychiatrist who had made diagnoses of major depressive disorder and OCD, for both of which the psychiatrist had prescribed mirtazapine, the dose of which had subsequently been increased from 30 mg HS to 45 mg HS. Both the patient and his wife expressed the opinion that his distress over his bowel habits had been the primary contributing factor to this suicide attempt.

He had no history of either mania or psychosis.

He had a long history of recurrent urinary tract infections and of difficulty initiating micturition and had undergone a radical prostatectomy for prostate cancer 8 years earlier. He underwent a hemithyroidectomy 3 years earlier and, as mentioned above, was diagnosed with Parkinsonism 2½ years earlier.

His mother had a history of major depressive disorder successfully treated with ECT. His brother had a history of bipolar disorder.

He reported an unremarkably birth, early health and developmental milestones. He reported having always been anxious but that his childhood had been otherwise happy. He obtained a PhD and had worked as a University Professor throughout his career. He reported the occasional consumption of alcohol in moderation and denied any history of cigarette smoking, drug misuse or legal difficulties.

Mental status examination revealed a gentleman with fair hygiene and a slight right hand tremor in little apparent distress. He repeatedly expressed frustration over his inability to have regular bowel movements. His speech was of low volume but otherwise unremarkable. He intellectualised extensively. There was no evidence of any formal thought disorder. His mood was subjectively 'unhappy'

and his affect was restricted. There were no hallucinations, delusions or related phenomena. He was oriented. He denied suicidal or homicidal ideation.

Diagnostic impression

- Axis I: OCD-with co-morbid major depressive disorder.
- Axis II: deferred.
- Axis III: prostate cancer with prostatectomy, Parkinson's disease, dyslipidaemia, hemithyroidectomy.
- Axis IV: moderate to severe stress because of his obsession.
- Axis V: 50.

A neurologist was asked to review his medication for Parkinson's disease. He was given a course of nine ECT treatments. His OCD improved with this treatment. He was quite normothymic and symptom-free by the time of discharge.

INVESTIGATIONS

- Complete blood count
- Liver function test
- Thyroid stimulating hormone
- Urinalysis
- Serum Lipid levels
- EEG
- CT scan
- Neuropsychology tests.

The results of these investigations were all normal.

DIFFERENTIAL DIAGNOSIS

- Major depressive disorder-recurrent, severe (OCD preceded the onset of depression by history).
- OCD secondary to Parkinson's disease (history of OCD dated back to several years before the onset of Parkinson's disease).

TREATMENT

- Quetiapine 200 mg at bedtime.
- Levodopa/carbidopa 100/25 one tablet at 7 am, two tablets at 11 am, one tablet at 3 pm and one tablet at 7 pm.
- Clonazepam 0.125 mg in morning plus 0.25 mg at bedtime.
- Escitalopram 20 mg daily.
- Synthroid 0.025 mg daily.
- Sennosides two tablets per day.
- Sodium docusate 200 mg twice per day.
- ECT ×9.

OUTCOME AND FOLLOW-UP

The patient showed marked improvement in both his mood and his OCD symptoms. There was a noticeable improvement in the symptoms of Parkinson's disease also. He was discharged in a satisfactory condition and follow-up arrangements were made with his community psychiatrist, neurologist, mental health nurse and counsellor.

DISCUSSION

OCD is a chronic condition which can be alleviated with pharmacological and behavioural treatments but 40–60% of patients do not have a satisfactory outcome. A study based on computerised search on PubMed reviewed a number of strategies for treatment of treatment-resistant OCD, mentions that ECT has a role in treatment-resistant OCD complicated by severe comorbid depression, suicidal ideations and severe socio-occupational incapacitation.[1] A Japanese case report described a pregnant woman with severe OCD who was successfully treated with modified ECT.[2] Another study describes remission of major depression and OCD after a single unilateral ECT.[3] In another study the same authors reported that a number of patients showed improvement in OCD symptoms following ECT. They believed these changes were independent of changes in measures of depression.[4] Two studies[5 6] have demonstrated beneficial effects of ECT in Parkinson's disease while another independent study[7] showed benefit of ECT in OCD associated with Tourette's syndrome.

Hanisch *et al*[8] believes that ECT is not an approved therapy in OCD but that it might be an option in refractory cases of comorbid OCD and schizophrenic/schizoaffective disorder.

Learning points

- ECT does play a role in both OCD and Parkinson's disease.
- Aggressive treatment in severe OCD may bring good outcome in terms of improvement.
- OCD associated with co-morbid depression and Parkinson's disease may pose a serious management dilemma.

Competing interests None.

Patient consent Obtained.

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