MICRO LABS SYNAPSE

Interesting cases PSYCHIATRY

Vol 3|Issue 9|2022

Dear Doctor,

Greetings from Micro Labs Limited.

We are happy to bring you the "PSYCHIATRY Case series", which contains the latest and most interesting cases in the field of Psychiatry.

This issue contains

1. A case report on acute mania with psychotic features successfully treated with electroconvulsive therapy and diagnosed with turner syndrome and bipolar disorder
2. A case report of on an unusual presentation of covid-19: confusion and hallucination
3. Obsessive compulsions associated with asymmetsric temporal lobe atrophy
4. Subacute depressive disorder with diminished parkinsonian symptoms after DBS implantation

Should you require any specific article or medical information, please feel free to contact us at medicalservices@microlabs.in

Looking forward to your valuable feedback

Best Regards,

Medical Team,

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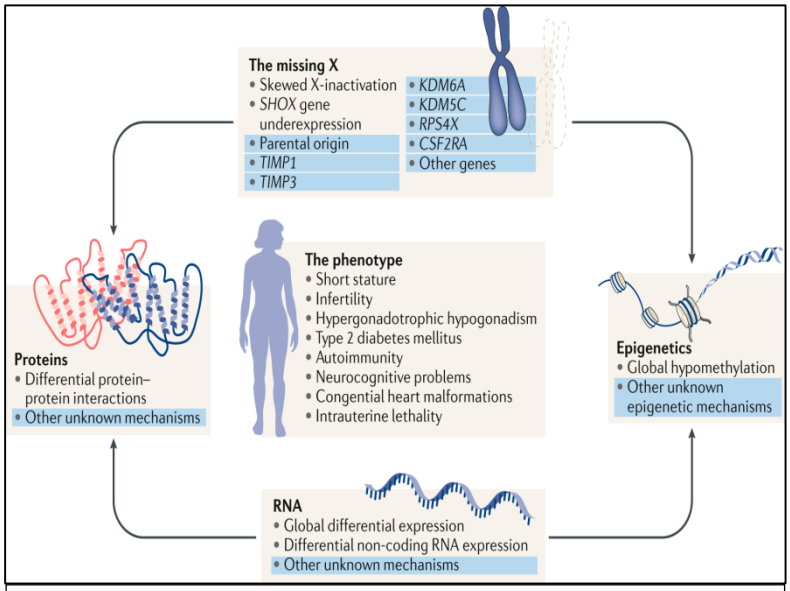
A case report on acute mania with psychotic features successfully treated with electroconvulsive therapy and diagnosed with turner syndrome and bipolar disorder

Turner syndrome is a chromosomal abnormality in which there is a partial or a complete copy of the X-chromosome missing. In 1938, the syndrome was first described by Henry Turner which is characterized by a short or webbed neck, obesity, low-set ears and a short stature. This syndrome is associated with disorders like infertility, skeletal abnormalities, heart conditions, diabetes mellitus and Hashimoto's thyroiditis.[1] The presentation of TS varies among the affected individuals regarding the wide symptom range.[2]



Turner syndrome

A 17 year old female presented with acute manic and psychotic symptoms. She had irregular menstruation and menorrhagia with one occasion of anemia, for which she was treated. No history of substance use disorder. Family history revealed that her maternal grandmother had schizophrenia and grandmothers' mother had committed suicide. According to her parents she had always had a limited number of friends. She developed fatigue, apathy, sleeping problems, and depressed mood during autumn. She was diagnosed with mild depression and the patient received psychosocial support in an outpatient unit. The subject was prescribed with melatonin. Later change in mood and energy from the depressive state to a state with hypomanic symptoms was observed. The parents also described that she developed greater self-esteem, became overly ambitious, and made unrealistic plans. She experienced arousal, had an increased speech flow, unmotivated laughs, neglected hygiene routines, and ate and slept less than usual a few days before admission. She was always agitated and experienced delusions. The subject had tried to jump from the apartment balcony but was stopped by her parents.

On admission to the emergency room, patient was agitated, disorganized, incomprehensible speech and incongruent symptoms with fluctuations between irrational laughing and crying. Auditory hallucinations, a high pulse, and hyperventilation was observed. She was admitted to the emergency ward and was given 10 mg olanzapine and 20 mg alimemazine. Visual

hallucinations, echolalia, and sexual, persecutory, and telepathic delusions was observed during the first six days. Further care was given and was prescribed with intramuscular injections with 50-100 mg zuclopenthixol depot, 10-20 mg diazepam, and 5 mg biperiden on two occasions with a two-day interval. Manic symptoms were not improved and she developed signs of catatonia with disorganized motoric behavior including mannerisms and grimaces, staring, and agitation.

A decision on electroencephalography (ECT) initiation was made. Before treatment with ECT a computed tomography (CT) scan, electroencephalography (EEG), analysis of cerebrospinal fluid (CSF), and electrocardiography (ECG) was performed in narcosis. Ultrasonography of the abdomen, X-ray of the thorax, gynecological examination, extended blood testing for inflammatory diseases, and screening for bacteria and virus in the urine and blood was done. Erythrocyte sedimentation rate was increased, slightly increased levels of thyroperoxidase (TPO) antibodies, as well as vitamin D deficiency and iron deficiency. To reduce risk of metabolic side effects of olanzapine, olanzapine was switched to 20 mg aripiprazole. Bitemporal ECT was initiated under propofol sedation every 2-3 days, with a dosage of 205 to 230 millicoulombs (mC) and a pulse width of 0.4 milliseconds (ms) seven days after admission. The subject was clinically improved and the treatment regimen was shifted to right unilateral ECT, 18 days after admission.

Day 24 after admission, the subject relapsed with manic and psychotic symptoms and agitation. She received an injection of 100 mg zuclopenthixol, 10 mg diazepam, and 5 mg biperiden. She received the eighth ECT the day after, with a slightly increased electrical stimulus and after two additional ECT treatments. Aripiprazole dosage to 20 mg/day and lithium was administered and the patient's psychiatric status improved once again. Following discharge, the patient was diagnosed with TS with partial loss on one of the X-chromosomes which might have contributed to the development of her sudden acute manic episode.

This case study reported that electroencephalography could be effective in patients with Turner syndrome (TS). She was treated with antipsychotics and benzodiazepines initially but the psychotic symptoms progressed, and she developed a catatonic state. 6 days after admission, ECT was started, with improvement after two treatments. The treatment was extended to twelve sessions, with successful outcome.

For acute manic episodes in children and adolescents with concomitant TS the present case illustrates that ECT may be a safe and efficient treatment strategy. This case study revealed a possible association between Turner syndrome and bipolar syndrome and revealed the diagnostic and treatment challenges where the clinical presentation of a manic episode in a patient with this TS could be more complex and the treatment response slower.[2]

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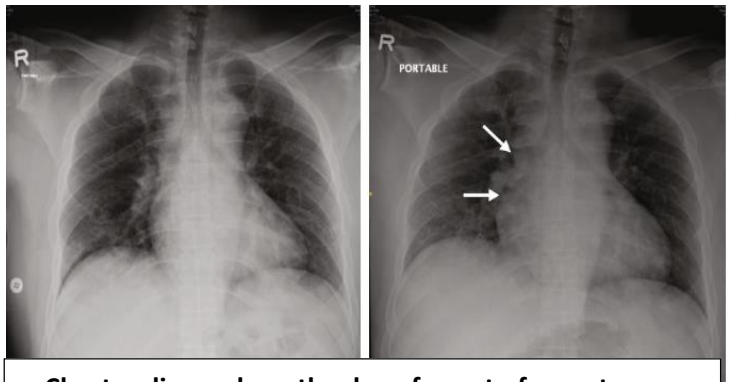
A Case Report of on an Unusual Presentation of COVID-19 : Confusion and Hallucination

A typical presentation of the coronavirus disease 2019 (COVID-19) infection is fever and respiratory symptoms. For accurate diagnosis and management of subjects considering other atypical presentations is crucial. To identify suspected, probable, and confirmed cases of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection the World Health Organization (WHO) guidance for public health surveillance of COVID-19 provides criteria for clinicians and healthcare workers.[1]

A 34-year-old man presented with a new onset of hallucination and a 5-day history of anxiety. No history of headache, seizures, visual changes or body weakness. During the COVID-19 lockdown there was an onset of symptoms. His wife noticed that he was having restlessness, deep fears of death and insomnia. 10 mg daily of escitalopram was prescribed to the patient. The patient developed hallucinations, visual and auditory, along with anxiety, and aggressive behavior five days after starting the new drug. His wife reported that upon arrival in the ED, symptoms of visual and auditory hallucinations, as he was seeing and talking gibberish, speaking short religious phrases, and hearing voices.



Chest radiograph on the day of onset of symptoms

The patient was conscious, alert, and oriented to the time and place but not to person on initial examination. Vital signs revealed an elevated blood pressure (BP) of 150/95 mmHg, a fever with an oral temperature of 38.6°C, a heart rate of 95 beats/minute, a respiratory rate (RR) of 25/minute, and a stable oxygen saturation (SpO2) of 97% on room air. There was no neck stiffness nor photophobia, nor any facial asymmetry. A nasopharyngeal swab for COVID-19 was done. Because of patient's restlessness and aggressive behavior, lumbar puncture and plain computed tomography (CT) scan of the brain could not be performed.

Electrocardiogram (ECG) showed normal sinus rhythm. With intravenous (IV) hydration (0.45% normal saline) The patient was initially managed as a case of delirium and rhabdomyolysis. The subject was empirically on piperacillin/tazobactam antibiotics at a dose of 2.25 mg every 6 hours and the cultures from sputum, blood, and urine was requested. Fixed doses of antipsychotics

(haloperidol) through intramuscular route and benzodiazepines (lorazepam) was prescribed. SARS-CoV-2 RT-PCR screening test yielded positive twenty-four hours later.

The patient was not stable for CT of the brain but his aggression and anxiety improved. His vital signs were reassuring with oral temperature of 36.6°C, BP: 130/73 mmHg, and SpO2 of 97% on room air, and he was calmer but still confused with GCS score 13/15 forty-eight hours after patient's initial presentation. His clinical and biochemical status was improving with supportive care and antibiotics. Results from a septic blood screen and urine culture were negative, seventy-two-hour postadmission. Vital signs in the morning were stable with a pulse of 90 beats/minute, BP: 135/80 mmHg, SpO2 of 98% on room air, RR: 20/minute, and GCS score: 13/15.
At evening time, he was scheduled for CT brain. His heart rate increased to 110-115 beats/minute around 15:00 pm. The patients respiratory rate increased from 20 to 30/ minute, and the patient was given bolus of 1 liter IV normal saline. Arterial blood gas, Stat chest radiograph, cardiac enzymes and D-dimer tests was requested. He was more tachypneic with RR of 45/minute, dropping GCS score to 10/15, and a high heart rate of 150 beats/ minute. The subject collapsed and for about 45 minutes cardiopulmonary resus-citation was conducted.

: Atypical psychiatric presentations should not be excluded since the COVID-19-related respiratory illness presents typically as pneumonia. This patient showed unusual COVID-19 signs and symptoms of confusion and hallucination. SARS-CoV-2 polymerase chain reaction test was positive and the subject underwent daily vital signs and respiratory, cardiovascular, and abdominal examinations. Microbial culture, chest radiography, electrocardiogram, biochemistry and toxicology tests were also investigated. This case study reveals the importance of interdisciplinary teamwork, allowing clinicians to collaboratively recognize the real prevalence and clinical significance of any atypical presentations in COVID-19 patients.

This case report presented with Covid-19 with an unusual presentation of confusion and hallucinations in the absence of severe upper respiratory or constitutional symptoms revealed that clinical presentations may not always be a typically pneumonia-like illness. This study highlights the importance of considering confusion and hallucinations as atypical presentations. For infection control, the recognition of this atypical presentation, utilization of a more flexible screening strategy, and early interdisciplinary medical care interventions are required.

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Obsessive compulsive disorder associated with asymmetric temporal lobe atrophy

Thorough neuropsychiatric investigation is required in patients who present to consultation with a late-onset psychiatric syndrome.

There is an association seen between OCD and frontotemporal dementia (FTD) since the efforts were made to differentiate FTD from Alzheimer's disease on clinical and phenomenological grounds.[1]In such cases OCD came out as a late onset disorder and re appeared or aggravated lifelong disorder. Till date, the association between OCD and FTD is unable to predict accurately from the neuroimaging or behavioral patterns of the individual cases.[1, 3] OCD may be more usual in the semantic variety of primary progressive aphasia whereas, complex compulsions are mainly related to asymmetric atrophy of the temporal lobes.[4]. This study is unique in the following aspects: it gives a vivid illustration of a real-life presentation of progressive aphasia with prominent OCD symptom; it supports the validity of the rare connection between the logopenic variant of primary progressive aphasia (lvPPA) and late-onset OCD

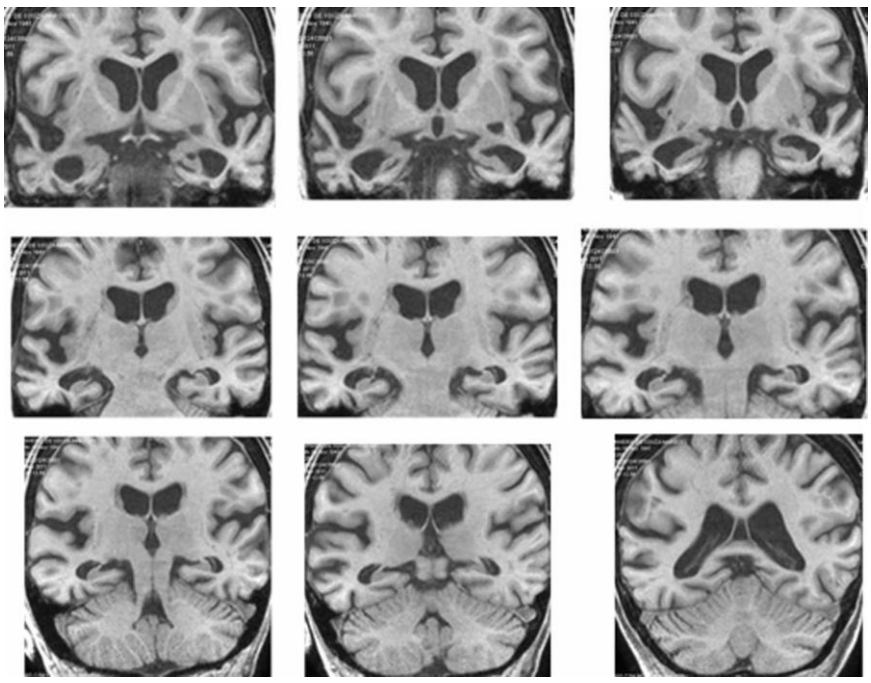

Fig. 1 T1-weighted MRI coronal slices through the anterior (upper row), middle (middle row), and posterior (bottom row) third of the

cerebral hemispheres. Atrophy is most marked in the temporal lobes, more so on the right, as indicated by the wider Sylvian fissure and temporal horn on this side. The lateral ventricles are also symmetrically enlarged

A 68 year old female, right handed married housewife comes with a complaint of failing memory in February 2010. Her husband tells that she was unable to recall the names of familiar objects gradually. She was also unable to recall the names of her friends and relatives whom she met occasionally. But surprisingly she was able to recall the facts about the person she failed to recognize. Few months prior to her appointment she became over concerned about the orderliness and cleanliness with gradually increasing frequency. Her sleep schedule was regular. Patient had some feelings of sadness and distress. Since her younger times the patient strived to keep everything neat and clean, neatness was a main concern. Everything had to be in the "right" place. which her relatives saw it as her personal quality.On the day of her first appointment, She was oriented to time and place and scored on the lower normal range on the Mini-Mental State Exam (26/30). Spontaneous speech was associated witha slow rate owing to word-finding pauses, but no frank grammatical errors was observed. She could read and write, and draw a clock from memory with ease. She missed one out of five serial subtractions of 7 from 100. She was unable name everyday objects correctly but described their use and used them normally. Neuropsychological assessments found out a striking dissociation between the language impairment and memory and the preservation of tool-use praxis and visuospatial and visuoconstructional skills.After 1.5 years, the patient became abulic and her cognitive impairment worsened and led to dementia (Mini-Mental State Exam 17/30. Despite 2–3 months of serotonin followed by paroxetin along with olanzapine at early stages of dementia patient condition did not become normal. During her last years, her memory impairment, the difficulty in time and place orientation, and the recognition of familiar faces worsened ,along with decreased compulsions to clean and tidy up. Her cognitive function remained same after a 6-month trial of rivastigmine 12 mg.

The patient's anatomic and spectroscopic magnetic resonance imaging (MRI) in revealed supratentorial ventricular ectasia (Fig. 1). The right hemisphere was smaller than the left, especially the temporal lobes. There was significant enlargement of the temporal horns. There was enlargement in lateral ventricles.The left cerebellar hemisphere was slightly smaller than the right, indicating crossed cerebellar atrophy. A follow-up MRI presented accentuation of the cortical sulci, notably in the temporal lobes. An 18FDG-PET scan at the time showed hypometabolism in the anterior temporal lobes (Fig 2). Volumetric analysis illustrated global cortical grey matter volumetric reduction over a year, which was more presented in the right temporal lobe

It is seen that the right temporal lobe was the region in which atrophy was more and the region in which greatest volume reduction seen over the course of 1 year. Pet scan also showed the hypometabolism in the temporal lobe of left hemisphere.[1]This type pattern of predominant right

temporal lobe atrophy might describe the relative preservation of semantic knowledge, but as the neuropathological process ultimately seen in both hemispheres, semantic impairment also became evident.[1]

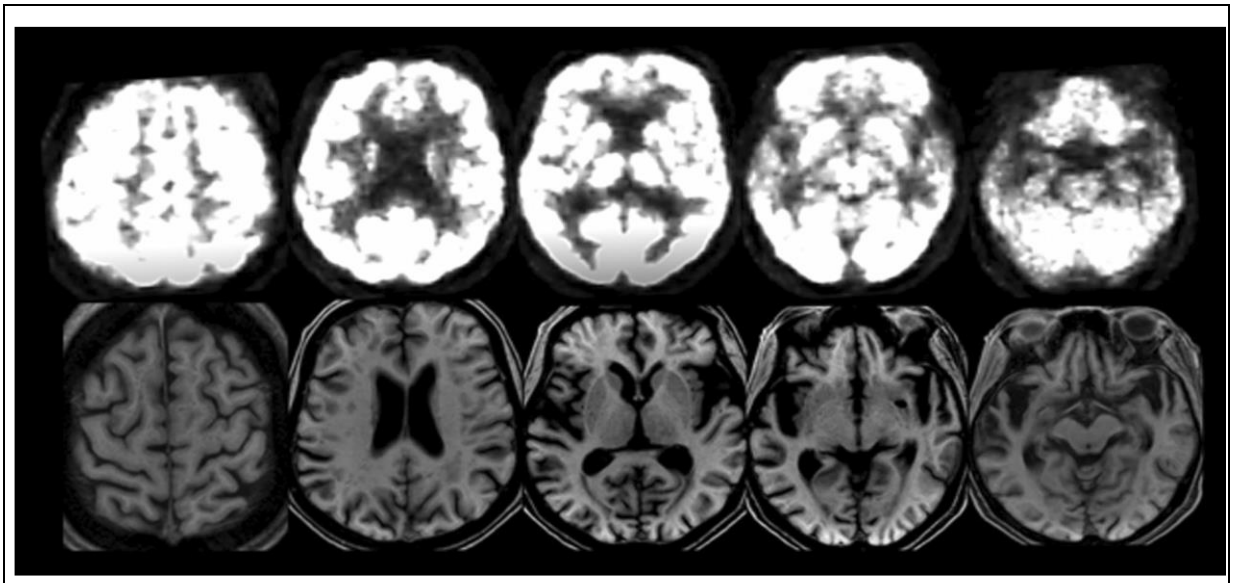

Fig. [2] Upper row: 18FDG-PET scan showing bilateral hypometabolism in the anterior temporal cortex. The metabolism of the orbitofrontal cortex as well as the caudate nucleus and thalamus is bilaterally normal. Lower row: T1-weighted MRI showing severe bilateral anterior temporal lobe atrophy with relative sparing of the frontal, parietal, and occipital lobes

In conclusion**,** this study reported a case of woman with OCD as a consequence of frontotemporal dementia. This case highlights the importance of a thorough neuropsychiatric investigation of patients that present to consultation with a late-onset psychiatric syndrome.

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Subacute depressive disorder with diminished Parkinsonian symptoms after DBS implantation

Treatment and diagnosis of DBS related depression helps in improving patient's quality of life

Deep brain stimulation (DBS) is a surgical procedure of implanting an electrode into specific neuroanatomical areas where stimulation is given through a pacemaker-like apparatus that delivers continuous electrical impulses. DBS is used to treat movement disorders, as it mimicks the ablation of functional targets in a reversible and adjustable way. [1] DBS of the subthalamic nucleus or globus pallidus interna is a well established and tested surgical procedure in treatment of unresponsive Parkinson's disease (PD) since past decades. DBS appears to be one of the important alternative procedure in treating the long term, medically unresponsive patients suffering from multi-dose parkinsonism, whose quality of life is worse. The complications are often intra-operative but may rarely occur post operatively. Here is a case of a patient who suffered from the sub-acute depressive disorder as a complication of DBS indicated to treat Parkinsonism.

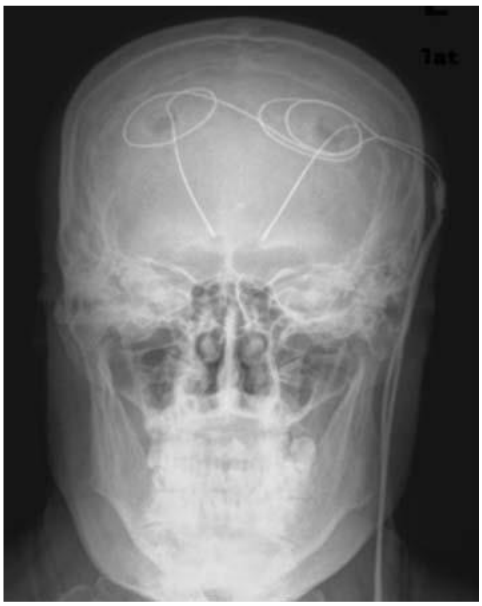

Fig.1. X-ray image of implanting electrodes in the bilateralsubthalamic nucleus for deep brain stimulation

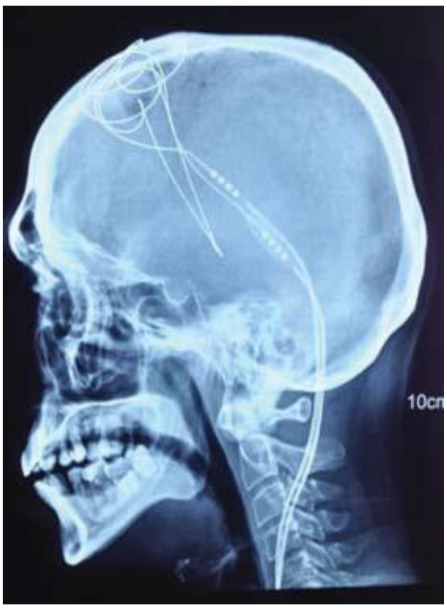

Fig.2.X-ray image of implantting electrodes in the bilateral sub-thalamic nucleus for deep brain stimulation

A 54 year old male patient comes with a history of Parkinsonism disease, underwent bilateral implantation of electrodes in the subthalamic nucleus for DBS (Fig 1 and 2).At the time of first

appointment with a neurologist, patient had involuntary movements in hands and legs, rigidity, severe akinesia, moderate tremors while resting, and limited movement.

His medical assessments eliminated other possible diagnoses and there was no family history of PD and other movement disorders. He was diagnosed with PD based on the clinical criteria and was started on levodopa. Since past 13 years his symptoms worsened and he was unable to work He did not improve even after applying various medications at therapeutic doses hence DBS was suggested to the patient. Before surgery the patient's pharmacological treatment was confined to Levodopa (1,200 mg/day), pramipexole (0.5 mg three times per day), and lorazepam (3-5 mg/day). After the DBS his symptoms improved and the doses were reduced to levodopa at 250 mg/day and carbidopa at 62.5 mg/ day. Patient did not have any psychiatric disorder or mood swings and any other complications during PD treatment prior to DBS implantation. However, the patient presented to the outpatient department with the symptoms of depression such as unhappiness, reluctance, increased daytime sleeping, forgetfulness, and anhedonia. The patient was diagnosed with Major Depressive Disorder. The patient was treated with escitalopram at 5 mg/day, titrated up to 10 mg/day in 2 weeks, and lorazepam was tapered and discontinued. Patient's symptoms improved at the 4th week of followup and at the 8th week patient was completely normal (HAM-D score was 18 and 6, respectively).

Psychiatric complications like anxiety, transient acute depression, obsessive compulsive disorder, and mania have been reported in many studies after DBS implantation but the subacute depressive disorder associated with DBS has not yet been reported previously.[4]We assume that depression is due to DBS considering temporal relationship between depression and DBS.

In conclusion, the study tells that clinicians should be aware of intraoperative and postoperative complications in order not to affect the mood of the patients. In addition, these procedures should be more carefully performed to avoid further complications. Also, having knowledge on the diagnosis and treatment of DBS related depression will help in increasing the quality of life of patients. Far more studies in the view of DBS-related depression are needed.

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