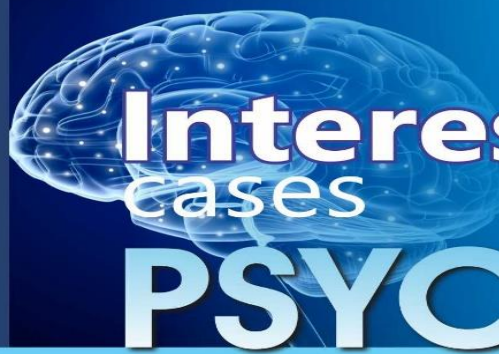




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Psychiatric Case Series

Vol 5 | Issue 16 |2023

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

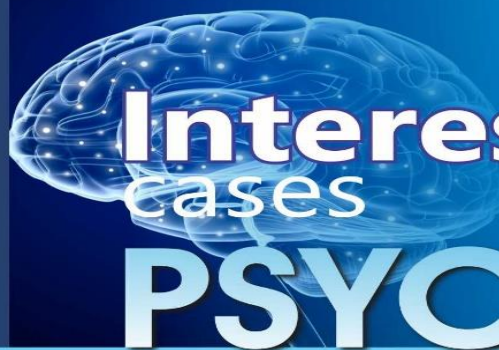
1. A Case Report on Long term COVID-19 treated with Accelerated Bilateral Theta-Burst Transcranial Magnetic Stimulation Over the Prefrontal Cortex.
2. A case report of secondary mania unique presentation of lacunar stroke following traumatic brain injury
3. The Woman Who Limped in Front of a Psychiatrist: A Case Highlighting the importance of physical examinations in psychiatric settings.
4. A case report of subacute combined degeneration of the spinal cord (SCD) presenting psychiatric symptoms.

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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1. A Case Report on Long term COVID-19 treated with Accelerated Bilateral Theta-Burst Transcranial Magnetic Stimulation Over the Prefrontal Cortex.

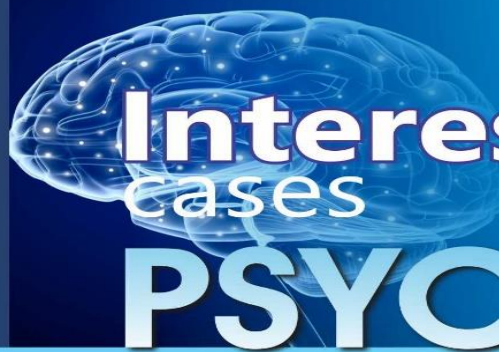
Introduction:

The SARS-CoV-2 coronavirus spread quickly around the world, causing the COVID-19 pandemic. After overcoming the initial phase of COVID-19, some individuals have had delayed or long-lasting effects. The phrase "long COVID" refers to symptoms that last for four to twelve weeks following the initial sickness and recovery. Fatigue, dyspnea, heart irregularities, cognitive impairment, sleep difficulties, muscular discomfort, attention issues, and headache are among the long-term COVID symptoms.¹ Transcranial magnetic stimulation (TMS) is a noninvasive technique used to directly examine the physiology and function of all parts of the human brain. By creating electromagnetic microcurrents in the cortex, TMS modifies the synaptic plasticity and excitability of the brain. Various psychological and neurological conditions have benefited from the use of TMS to improve cognition.² This case study describes a 30-year-old woman who experienced mild cognitive impairment, depression, insomnia, and anxiety for 8 weeks after infecting COVID-19. She responded to accelerated bilateral theta-burst TBS across the prefrontal cortex.

Case Presentation:

An anxious, depressed, insomniac, and mildly cognitively impaired 30-year-old lady presented to the psychiatric clinic. In addition to coughing up off-white sputum, she had a high temperature. In the last two days, two of her coworkers had been diagnosed with COVID-19. At Day 1, she went to the Emergency department and was given the COVID-19 diagnosis. She spent a week in isolation at home in compliance with rules. Dextromethorphan 90 mg/d, acetaminophen 1500 mg/d, levocetirizine 5 mg/d, benzonatate 300 mg/d, and fenoterol 2.5 mg/d were given to her over the course of seven days. Day three saw a slight decrease in her temperature. But she suffered from mild anxiety, sleeplessness, and brain fog. She tested negative for SARS-CoV-2 antigen on day 7 and subsequently went back to work. But for eight weeks, she struggled with anxiety, insomnia, and mild confusion. Because she was easily tired, she was making more mistakes than normal at work. She went to a family doctor. Longterm COVID was suspected. she was sent to the long-COVID clinic. To rule out biological causes, a biochemistry blood examination, chest X-ray, and electrocardiogram were scheduled. The outcomes were within the expected range. She also struggled with a lack of energy, losing interest in tasks, feelings of worthlessness, and psychomotor slowness in addition to a sad mood. A psychiatrist the diagnosed depressive disorder. She objected to taking antidepressants and anxiety drugs. She had no prior mental history and was in good

Accelerated bilateral theta-burst transcranial magnetic stimulation over the bilateral dorsolateral prefrontal cortex could reduce neuropsychiatric symptoms associated with long-term COVID.



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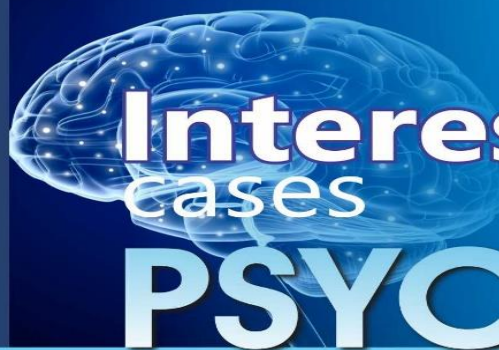
condition before becoming infected with COVID-19. Her depression was assessed using the Hamilton Depression Rating Scale (HAMD) and the Beck Depression Inventory (BDI). Her anxiety and sleep quality was assessed using the Beck Anxiety Inventory (BAI) and Pittsburgh Sleep Quality Index (PSQI), respectively. Higher scores indicate worse feelings of sadness, anxiety, and sleep quality, and the severity of these conditions increases with the scores. Researchers assessed her cognitive abilities using the subgroups of the third edition of the Wechsler Memory Scale (WMS). Higher WMS scores indicate improved cognitive abilities. Her results on the BAI, BDI, HAMD, PSQI, WMS Logical Memory, WMS-Faces, WMS-Verbal Paired Associates, and WMS-Family Pictures were 4, 18, 10, 14, 8, 10, 12, and 8 respectively. Researchers chose to try TBS, a new rTMS therapy, after the patient gave written informed permission, and was started quick TBS of the bilateral dorsolateral prefrontal cortex (DLPFC) utilising an Apollo TMS Therapy System. During the TBS treatment procedure, the patient did not get any antidepressants or psychotherapy for depression or anxiety. The patient's symptoms subsided over time. Her BAI, BDI, HAMD, PSQI, WMS-Logical Memory, WMS-Faces, WMS-Verbal Paired Associates, and WMS-Family Pictures scores increased to 0, 7, 1, 10, 15, 15, 15, and 10, respectively, after ten TBS sessions. After the TBS treatment period, her activities and functional abilities had improved. Dizziness and headaches were temporary side effects of the therapy that disappeared when it was completed. Following TBS treatment, she was not given any medicine or psychotherapy. Her clinical improvement persisted after the 3-month followup; at this point, she had obtained scores of 0, 5, 1, and 8 on the BAI, BDI, HAMD, and PSQI.

Discussion:

This article describes a case of the use of accelerated TBS of the bilateral DLPFC in a patient with neuropsychiatric symptoms linked with COVID-19, including as depression and moderate cognitive impairment. After ten therapy sessions, patient showed a considerable clinical improvement without experiencing any serious side effects.¹ The results supported a prior publication on accelerated intermittent BS (aiTBS), which was utilised to treat late-life depression during the COVID-19 pandemic. Konstantinou et al. used aiTBS to treat a 66-year-old female patient who was experiencing a severe major depressive episode in order to lower the chance of COVID-19 infection. After 8 daily

Symptoms	Baseline	After treatment
BAI	4	0
BDI	18	7
HAMD	10	1
PSQI	14	10
WMS-logical memory	8	15
WMS-Face	10	15
WMS-verbal paired associates	12	15
WMS-Family Pictures	8	10

BAI – Beck Anxiety Inventory; BDI – Beck Depression Inventory; HAMD – Hamilton Depression Rating Scale; PSQI – Pittsburgh Sleep Quality Index; TBS – theta-burst stimulation; WMS – Wechsler Memory Scale.



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sessions spread over 5 days, moderate to severe baseline depressed symptoms improved.³

Conclusion:

In this case, a 30-year-old lady with COVID-19 disease and an 8-week history of anxiety, depression, insomnia, and mild cognitive impairment was treated with accelerated bilateral theta-burst TMS over the prefrontal cortex. To confirm these preliminary findings of the effectiveness of this therapy, further studies with bigger sample sizes and randomized, double-blind, placebo-controlled trials are needed.

Reference:

1. Chang CH, Chen SJ, Chen YC, Tsai HC. A 30-Year-Old Woman with an 8-Week History of Anxiety, Depression, Insomnia, and Mild Cognitive Impairment Following COVID-19 Who Responded to Accelerated Bilateral Theta-Burst Transcranial Magnetic Stimulation Over the Prefrontal Cortex. *The American Journal of Case Reports*. 2023;24:e938732-1.
2. Han X, Cai S, Gui H, Chen R. Transcranial magnetic stimulation cortical oscillations and improve cognition in obstructive sleep apnea patients. *Brain Behav*. 2023 Apr;13(4):e2958.
3. Konstantinou GN, Downar J, Daskalakis ZJ, Blumberger DM. Accelerated intermittent theta burst stimulation in late-life depression: A possible option for older depressed adults in need of ECT during the COVID-19 pandemic. *Am J Geriatr Psychiatry*. 2020;28(10):1025-29

2. A case report of secondary mania unique presentation of lacunar stroke following traumatic brain injury.

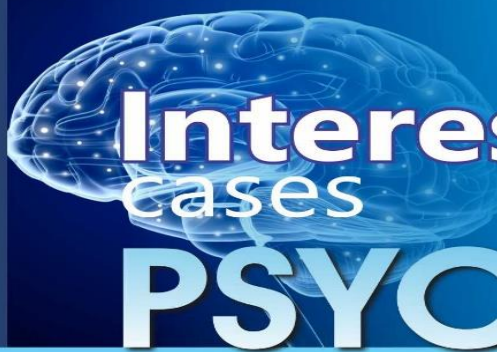
Introduction:

An injury due to a blow, bump, jolt, or penetrating damage that impairs the brain's normal function is known as traumatic brain injury (TBI). Depending on the extent of the injury, symptoms can range widely and can be moderate or severe; imaging may or may not show alterations. Patients with moderate TBI may have brief changes in consciousness or mental state, but severe TBI may go through extended episodes of unconsciousness, coma, or death.¹ The extent, occurrence, and latency of TBI sequelae are more diverse and more frequent in the elderly. Mania caused by neurological injury, such as a TBI or stroke, is significantly mapped to the right orbitofrontal cortex.² In this case report, Researchers talk about a patient who recently had a traumatic brain injury (TBI) and developed mania as a result of a right frontal lacunar infarct.

This report highlights the significance of early traumatic brain injury detection as well as known hazards and treatment of cerebrovascular and psychological consequences.

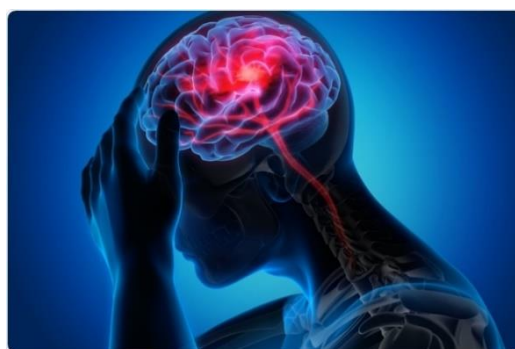
Case Presentation:

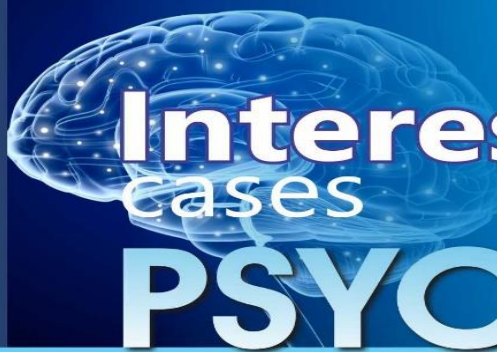
A 84-year-old male comes to the emergency room (ED) to have his personality and mental state assessed. He is capable of carrying out all activities of daily living (ADLs) and taking care of his unwell wife at baseline. He is also functioning and intelligent. Although he had fallen down his steps seven weeks earlier, and a head CT scan revealed facial fractures of the LeFort type I, extending into the bilateral maxillae and nasal septum. Although the TBI met the DSM-V Criteria, it was not reported. He was sent home after



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four weeks at a rehabilitation centre because his severely altered cognitive function made it difficult for him carry out ADLs, including confusion, hallucinations, delusions, paranoia, and agitation. The patient complains of some significant cognitive abnormalities, such as his "mile a minute" complaints and that "something is going on upstairs" when he presents seven weeks after his facial injuries. The patient is dishevelled and irritable but generally oriented. He moves about the room and keeps mentioning his previous fall. The patient answers questions curtly and keeps pontificating loudly and nonsensically due to his quick, hurried, and frequently confused speech. The patient's daughter works as a healthcare provider and contributes further data. She attests to his shifting mental state and gradual behavioural modifications following his tragic fall. She praises the patient's transformation from a "stern man" to someone who is lucid and happy, and she suspects that his symptoms are brought on by a TBI that occurred concurrently with his facial injury. In addition to being unable to sleep, the patient has been experiencing paranoia, persecutory delusions, visual hallucinations, and calls to family members at 4:30 in the morning concerning his "stolen driver's licence," accusing his neighbours of stealing, and uttering strange militant declarations like "the perimeter is secure." Additionally, he has been texting his family members with illogical messages. He repeatedly dialled 911 from his hospital room due to a "TV issue," asked for sex from staff and said, "Want to get down and dirty," hit staff, asked staff if they wanted to "brawl," and sang afterward. He also displayed impulsivity and disinhibition on several other occasions while there. Despite having a normal BMI, his past medical history is solely notable for his well-managed metabolic syndrome and chronic obstructive pulmonary disease (COPD). With the exception of his facial fractures and age-related atrophy, the CT at presentation was largely normal. Based on the patient's medical history, medication reconciliation, and normal findings for a basic metabolic panel, complete blood count, and microbiological cultures, known causes of delirium were ruled out. The patient's only mania-related medicine was fluticasone, despite the fact that he had been stable on it for years and had not been given any steroids during his hospital stay. Valproate was administered for mood stabilisation and seizure prevention after the electroencephalogram (EEG) revealed epileptiform activity without well-formed seizures; the patient was susceptible to medicine to "make his brain do its job." After 2 days on valproate, the patient's mania, agitation, and rapid speech did not subside; therefore, risperidone was administered in combination, and the patient's manic symptoms significantly improved over the succeeding 2 days. Aspirin was started after an interim MRI showed a right frontal lobe acute lacunar infarct. After nine days in the hospital, he was discharged from the hospital and transferred to a qualified healthcare facility five days later. One year later, he has shown improvement, regaining physical functionality and completely tapering off of his risperidone without persistence of manic symptoms; however, he has retained some of





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his personality change from stern to jovial as well as some persisting cognitive dysfunction and forgetfulness.

Discussion:

Here, Researchers discuss the case and treatment of an 84-year-old manic patient who had a lacunar infarct in his right frontal lobe seven weeks after an unidentified traumatic brain injury. Primary mania rarely develops after age 50 and is typically a sign of underlying neurological disease, especially in the right orbitofrontal cortex.² This is the first report that contributes to the knowledge of mania in the context of a post-TBI frontal cortical infarct, despite the fact that there are numerous known case reports of mania in TBI patients, and the association between TBI and subsequent strokes has been well-documented (Yang et al., 2022).^{3,4,5}

Conclusion:

In summary, this case report emphasises the significance of early traumatic brain injury detection, the established risk of cerebrovascular and psychiatric onsequences, and the need to manage these effects..

References:

1. Lizzo JM, Waseem M, Tatikonda G. Brain Trauma (Nursing) [Updated 2022 Aug 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; Jan 2023.
2. Kurtz CE, Kablinger AS. A unique presentation of lacunar stroke following traumatic brain injury: a case report of secondary mania in an 84-year old. *Psychiatry Research Case Reports*. 2023 Mar 29;100109.
3. Cittolin-Santos, G.F., Fredeen, J.C., Cotes, R.O., 2017. A case report of mania and psychosis five months after traumatic brain injury successfully treated using olanzapine. *Case. Rep. Psychiatry* 2017, 7541307.
4. Yang, C., Lang, L., He, Z., Hui, J., Jiang, J., Gao, G., Feng, J., 2022. Epidemiological characteristics of older patients with traumatic brain injury in China. *J. Neurotrauma*. 39, 850–859.
5. Yang, C., Lang, L., He, Z., Hui, J., Jiang, J., Gao, G., Feng, J., 2022. Epidemiological characteristics of older patients with traumatic brain injury in China. *J. Neurotrauma*. 39, 850–859.

3. The Woman Who Limped in Front of a Psychiatrist: A Case Highlighting the importance of physical examinations in psychiatric settings.

Introduction:

Psychiatry, the area of medicine that deals with mental illnesses, could be viewed as a field of medicine where practitioners aren't typically expected to conduct physical examinations. However, the opposite is true, particularly when it comes to individuals with serious mental illness. However, this could not be further from the reality, particularly when it comes to individuals with serious mental illness.¹ Even though physical examination is not usually given high attention in many individuals with psychiatric problems it is a crucial part in the assesment done by Physician.² The patient complained pain in her

This case highlights the significance of conducting thorough physical examinations in psychiatric settings.

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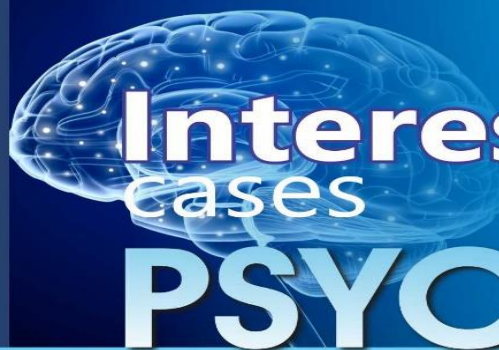
lower extremities in this report. It was never investigated until her new psychiatrist noted a gait irregularity, which led him to investigate and identify a serious medical condition.

Case Presentation:

The 72-year-old woman in this case had been receiving psychiatric treatment for more than ten years. She saw her children once every two months while she lived alone. She did, however, occasionally interact with her neighbours. She was on a limited finances, but it was enough for her necessities. Her hygiene habits seemed to be appropriate. The neighbours heard her praying aloud and conversing to herself, and she came across as a profoundly devoted person. She was treated by a psychiatrist who identified her underlying delusions of persecution and prejudice and prescribed a low dose of antipsychotic (olanzapine 5mg per day) to address her symptoms. She had no history of exacerbations, relapses, or hospitalisations, and her symptoms were under control. There was no circumstantiality, hypergraphia, or viscosity. Her routine laboratory tests revealed that there were no negative outcomes or alterations in her biological markers during her therapy. She started discuss her religion more with the psychiatrist. She used to tell the psychiatrist at the end of each appointment, "You are treating me, but it is God who heals." No signs of anxiety, phobias, or obsessions were noted. In the weeks before her mental evaluation, her religious views grew more apparent. She was heard pleading with God for forgiveness for her sins and thought the pain in her leg was a punishment from Him; she fully embraced this act of atonement. Her doctor considered the possibility of increasing the dosage of her medication when she disclosed her beliefs to him. The consultation on problem took place in the winter with a new psychiatrist. She was well-dressed for the cold and was wearing boots. She was seen limping on her way to the consultation office and said that it had been going on for a while, attributing it to the suffering God had caused in order to atone for her sins. She had already discussed the discomfort with the nurses and her general physician. She went into further detail about her religious delusions in the psychiatrist's office. She made a strong connection between her lower-limb pain and her conviction that she was being punished by God. The psychiatrist then faced her with the idea that the discomfort and limping may be caused by factors other than what she believed and began discussing her unusual gait for the first time. She didn't want to hear any other reasons for her limp. Her medical examination was then recommended by the psychiatrist in order to rule out any physical adverse effects from her medication, such as akathisia or other extrapyramidal symptoms. She inquired about the psychiatrist's qualifications before letting him remove



Dorsal view of the patient's right foot. Note the overgrown toenails and dry skin.



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her boots and if he was a "real doctor." He reassured her, then carefully removed her socks to saw her completely neglected feet. Following the examination, the psychiatrist informed the patient that the discomfort and incorrect gait were probably caused by the condition of her toenails, which resulted in not enough space within her boots. The psychiatrist began to suspect her way of life, level of personal care, social life, and support, particularly in light of her children. She was sent to the Emergency Department for urgent care after he spoke with the nurses to assist the patient. In the hospital's emergency room, the patient underwent a comprehensive examination, and the doctor noted the same symptoms. The podiatrist visited the patient the next day. The patient had not trimmed her toenails in over a year and required immediate care, presented the foot specialist with a challenging case. One of the patient's toenails grew to be 7 centimetres long. It took around fifty minutes to trim the woman's thick, yellow fingernails. To address the underlying fungal infection, a follow-up dermatological consultation was scheduled. The patient's underlying delusional views served as a smokescreen for the doctors in charge of her care, as is shown in this case. While the doctors were close to discovering the true reason of her reported pain, they prevented them from suspecting that her leg discomfort was organic rather than a translated somatization or biased perception brought on by her mental condition. This highlights the idea that when people with mental illness present to any clinician with physical concerns, they run a risk of being ignored or neglected. The stigma associated with such patients and the subsequent attitude of the medical professionals who treat them is a significant component in this terrible outcome.

Discussion:

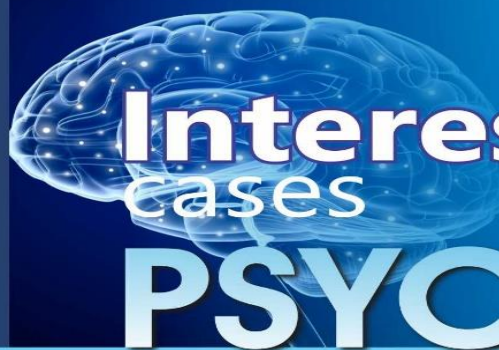
The subject of the body has sometimes considered taboo in psychiatry. According to the psychopathology, the body must once again become an area of encounter and targeted treatment.² There is a correlation between poor physical health and mental disease, according to several scholarly journals. Patients in psychiatric facilities frequently have physical illnesses, most of which go undiagnosed. Additionally, they have trouble taking care of themselves, don't eat well, don't follow through with treatments, and have negative side effects from psychiatric medications.³ These findings have resulted in suggestions for medical practitioners on how to correctly detect and treat mental patients. Unfortunately, there is still a great deal of work to be done.

Conclusion:

This instance demonstrates how crucial it is to perform complete Physical examinations in psychiatric facilities. Furthermore, it gives an illustration of a circumstance when psychiatric patients refrain from being checked though exhibiting clear physical symptoms.

References:

1. Esang M, Goldstein S, Dhami R. The Role of Physical Examinations in Psychiatry as Illustrated in a Case of Neuroleptic Malignant Syndrome Versus Viral Encephalitis: A Case Report and Literature Review. *Cureus*. 2019 Jun 5;11(6):e4840.
2. Stip E, Ahmed HM, Javaid SF, Amiri L. Head to Toe Psychiatry: The Lady Who Limped in front of a Psychiatrist. *Case Reports in Psychiatry*. 2023 Mar 27;2023.



Interesting cases PSYCHIATRY

3. M. Luciano, G. Sampogna, V. del Vecchio et al., "The impact of clinical and social factors on the physical health of people with severe mental illness: results from an Italian multicentre study," Psychiatry Research, vol. 303, article 114073, 2021

4. A case report of subacute combined degeneration of the spinal cord (SCD) presenting psychiatric symptoms

Introduction:

Subacute combined degeneration of the spinal cord is a condition that predominantly results from demyelination and affects the lateral and posterior columns of the spinal cord. It may develop in individuals who are vitamin B12 deficient, producing haematological and neurological symptoms.¹ Deep hypoesthesia, sensory ataxia, and spasmodic paralysis of the lower limbs are symptoms of subacute combined degeneration of the spinal cord (SCD). Megaloblastic anaemia frequently coexists with SCD. Although psychiatric symptoms may be the first signs of SCD due to a vitamin B12 deficiency, they are typically seen as subsequent to the physical pain and psychological aspects of the disease. Additionally, there are very few studies regarding treatment experiences for psychological problems in SCD.² Here is a case of SCD with psychological symptoms that were strongly related to physical discomfort such gait ataxia and sensory abnormalities.

Psychiatric symptoms of Subacute combined degeneration of the spinal cord could be generated from lack of Vitamin B12, anemia and neurologic symptoms

Case Presentation:

The patient, a 37-year-old woman, was persecuted and kept under control for one week before being committed to the psychological unit with symptoms of numbness and prickling in the lower extremities for the last two months. She was a curtain retailer before the onset of illness, and she was independent. The numbness steadily increased, moving from the level of the ankles to the waist. After the occurrence of these discomforts, she felt depressed and loss of interest. Her spouse then took care of her. Her symptoms of reduced appetite, stress, anxiety, and a gait characterised as "stepping on cotton" started about a month earlier. She was unable to walk a week prior, could not stop shaking and trembling, and discovered her husband to be suspicious of her control. The patient revealed during the psychological examination that her lower limbs were the only ones to first experience numbness and prickling. She gradually started to experience anxiety, depression, and a lack of motivation to get tasks completed. Her anxieties and suspicions increased as the symptoms persisted. She began exhibiting psychotic symptoms in the meanwhile. She thought her spouse was trying to control her legs by clicking on the phone, making her feel pain and out of control. Additionally, she had distrust towards medical professionals after being admitted. She thought that the physicians were using their pens as control buttons that might influence her body and leaving her feeling uncomfortable and numb. She couldn't sleep at night and appeared suspicious. The results of the mental health evaluation revealed decreased psychomotor activity, excessive worrying, despair and anxiety, trouble falling asleep, delusions of

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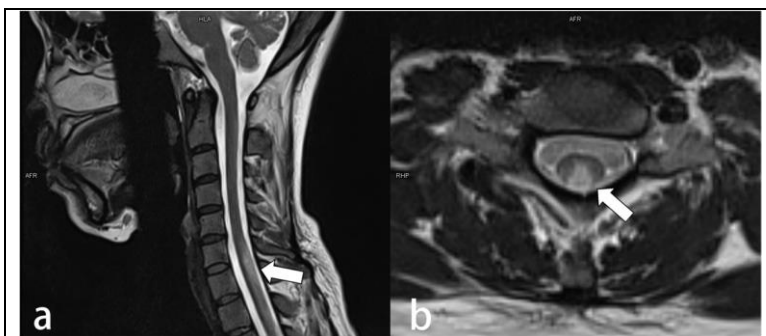
control, and mood-congruent persecutory delusions. Her intelligence was diminished. However, the patient's memory, focus, or orientation were not impaired. Prior to being admitted, she saw a gastroenterologist as an outpatient and only prescribed Mosapride 5 mg three times daily for her lack of appetite and fatigue, which had no beneficial effects. She visited the neurology outpatient clinic a few days later for limb numbness. Examinations were scheduled 10 days before to admission. Red blood cell (RBC) and haemoglobin (HGB) results from the blood test were $1.31 \times 10^{12}/L$ and 61 g/L, respectively. She did not visit the doctor again following the reported medical results, however, until her psychological problems started to appear. She then visited an outpatient psychiatry appointment and was admitted immediately. After being admitted, it was discovered that she had maintained a vegetarian diet for about 8 years. She denied using drugs or having a family history of psychiatric illnesses. A neurological examination revealed diminished muscle strength in the lower limbs as well as altered vibratory and acupuncture sensation. SCD and delusional illness were suggested as possible diagnosis, and thorough examinations were advised. Vitamin B12 levels were <36.9 pmol/L (in the reference range of 145.0 to 569 p mol/L), RBCs were $1.91 \times 10^{12}/L$, and the Mean Corpuscular Volume (MCV) was 113.6 fl (in the range of 82 to 100 fl). HGB was found to

be 47 g/L (reference range: 115–150 g/L) on a complete blood count (CBC). The cervical thoracic cord's abnormal signals below the level of spine centrum No. 6 and a circular

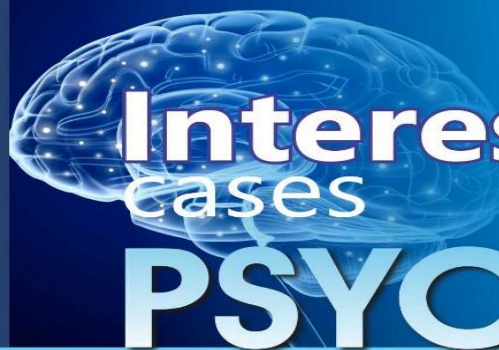
hyper-intensity in the pituitary were both visible on an MRI of the brain and entire spine.

Megaloblastic alteration was seen in peripheral blood and bone marrow smears. SCD was the

patient's main diagnosis. Multiple sclerosis, compressive myelopathy, autoimmune, and gastrointestinal conditions were ruled out. Megaloblastic anaemia, Vitamin B12 deficiency, and organic mental illness were among the secondary diagnoses. Vitamin B12 500 mg intramuscular injections were given to the patient every day. A daily dosage of 10 mg of folic acid was given orally three times. A diet high in vitamin B12 was suggested. When HBG of 47 g/L discovered, blood transfusion was done (3.5 units of suspended RBC). In addition to Olanzapine 10 mg per day, which was given for her psychiatric symptoms, duloxetine 60 mg per day was used to treat her depressed symptoms. The patient's lack of appetite increased three days after receiving care in the psychiatric quarantine ward. And when her physical limitations and poor adaption remained her anxiety and suspicion intensified. Her vital indicators stayed steady. Her HGB increased 84 g/L. After a week, her unusual symptoms, numbness, and weakness started disappeared, and her anxiety and suspicion subsided at the same time. After receiving



A Sagittal T2-weighted image showing abnormal hyperintense signal in the posterior aspect of the spinal cord (arrow) extending from the level of C6. B Axial T2-weighted image of the cervical spinal cord showing symmetric bilateral hyperintensity in the dorsal and lateral columns (inverted V sign) (indicated by white arrow)



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treatment for 14 days, she completely recovered from all neurologic and psychological issues. She was released 18 days after being admitted with recommendations for vitamin B12, folic acid, and other nutrient supplements.

Discussion:

SCD is a neurodegenerative condition with reversible symptoms, including peripheral neuropathy damage, paresthesia, weakness, ataxia, deep sensitivity disturbances, and, very occasionally, ocular atrophy and psychological signs. Lack of vitamin B12 could interfere with the metabolism of methionine and homocysteine, resulting in cognitive decline and psychiatric symptoms.² Vitamin B12 is an essential coenzyme involved in the formation of myelin and neurotransmitters. Additionally, without Vitamin B12, methylmalonic acid (MMA) accumulates and causes demyelination of neurons because methylmalonyl-CoA cannot be converted into succinyl-CoA. These procedures could cause psychological symptoms to appear.³

Conclusion:

In conclusion, a combination of Vitamin B12 deficiency, anaemia, deteriorating physical state, and personal and environmental disruption is responsible for the psychological symptoms experienced by SCD patients. It's important to check the vitamin B12 levels of people with psychiatric symptoms, especially those who also have anaemia. Further research is necessary to determine the effectiveness of antipsychotics and antidepressants in patients with SCD.

References:

1. Saji AM, De Jesus O. Spinal Cord Subacute Combined Degeneration. 2023 Feb 12. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; Jan 2023
2. Zhang Y, Luo H, Wang X, Qiu H, Ren H, Zheng A, Luo Q. Psychiatric symptoms in a female with subacute combined degeneration of the spinal cord (SCD): a case report. BMC Psychiatry. 2023 Mar 1;23(1):129.
3. Norris F, Mallia P. Lesson of the month 2: a case of nitrous oxide-induced pancytopenia. Clin Med (Lond). 2019;19(2):129–30.



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