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Sleep Disorders in Meningoencephalitis with Adjustment Disorders

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Abstract---*Many patients with medical disorders, such as meningoencephalitis are evaluated by psychiatrists complaining of sleep problems as one of the symptoms. A 65-years old married male patient who was currently unemployed was interviewed by a psychiatrist in an uncomfortable reclining position. The patient had been hospitalized for 8 days prior to the interview with a history of being unconscious. The patient showed disorganized speech, tried to pull the intravenous line, and hit his wife. The patient said that at this time, he was unable to sleep due to throbbing headaches, nauseous, and frequent urination at night. Thus, the patient felt uncomfortable, tired, and drowsy in the morning. Those symptoms got worse in the last week. The patient never had sleep problems before. The psychiatric status showed an appropriate appearance, uncomfortable looks, adequate verbal and visual contact, clear consciousness, dysphoric mood and affect which was congruent, logical realist coherent thought process, and a preoccupation of headache. There was no hallucination or illusion, but mixed type insomnia was found. The patient was diagnosed with adjustment disorder with predominant symptoms and sleep disturbances (F43.28). The underlying organic medical disease was Suis Meningoencephalitis, observation of leukocytosis due to infection, acute kidney injury or acute chronic kidney disease, mild anemia, and diabetes mellitus type II. Therefore, the psychiatrist treated the patient with 0.5 mg Lorazepam every 24 hours orally at night, supportive psychoeducation, sleep hygiene, Cognitive Behavior Therapy (CBT), and family psychotherapy.*
Keywords---*adjustment disorder, insomnia, meningoencephalitis*

Introduction

Sleep disorders can cause significant morbidity across all ages, especially in the elderly who are experiencing medical health problems. There has been an increase in the prevalence and clinical significance of mental and physical health-related sleep disorders in recent years. Many patients with other medical disorders examined by psychiatrists also complain of sleep problems as one of the symptoms (Harrison et al., 2018). Sleep disorders can also accompany neurological disorders one of which is meningoencephalitis, in which inflammation of the parenchyma of the brain occurs with or without the involvement of meningeal structures (Ungureanu et al., 2021). Sleep disorders have been reported in patients with autoimmune encephalitis such as REM sleep behavior disorders, hypersomnia, and fragmented sleep, as well as respiratory distress during sleep. New sleep complaints were reported in 18/25 (72%) of autoimmune encephalitis patients in this group, including dream enactment (24%, 6/25), insomnia (20%, 5/25), hypersomnia (16%, 4/25), other parasomnias (16%, 4/25), and confusional states of sleep/wakefulness (8%, 25/2). PSG data showed the presence of poor sleep efficiency (55%) compared to a healthy population and

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respiratory distress during sleep was diagnosed in 32% (8/25) of patients with autoimmune encephalitis (Blattner et al., 2018).

Sleep disorders are more likely to occur when individuals tend to be exposed to originator events, such as major events in life (for example, illness, separation) or conditions that are not severe but cause longer stress each day. Personality or cognitive coping that tends to be anxious or worried, increased arousal predisposition, and a tendency to suppress emotions can increase susceptibility to sleep disorders. The female sex and old age are associated with an increased risk of insomnia. Sleep disorders and insomnia indicate family disposition (American Psychiatric Association (APA)., 2013).

Sleep disorders are one of the deeply contained depressive symptoms (DSM-IV) whose one of the causes is the failure to decrease activity in some parts of the brain that regulate sleep. The sleep disorder experienced in most people is insomnia and 15% is hypersomnia. This symptom also often initiates the recurrence of depression. Sleep disorders caused by other organic diseases and personal problems can aggravate depression (Radityo, 2012). In this case report, the author will discuss sleep disorders in meningoencephalitis which are accompanied by adjustment disorders.

Case Report

The 65-year-old male, married, was consulted to the Psychiatric section with complaints of not being able to sleep. He was interviewed lying on a hospital bed accompanied by his wife and wearing a striped T-shirt and black shorts. Roman's face during the examination looked uncomfortable, answering questions in a low tone of voice, but still understandable to the examiner. He is willing to stare at the examiner and answer the questions as asked by the examiner during the interview.

He could state his name, recognize the person who accompany him at this time and be oriented to the place and time of the examination. He said he had been treated since April 10, 2022. The patient is currently complaining of sleeplessness after feeling sick for the last 1 week because of throbbing headaches at night, sometimes nausea, and frequent urination. This makes the patient feel uncomfortable and tired in the morning. He has difficulty falling asleep starting sleep, sleeps poorly, often wakes up, and has difficulty falling back to sleep until the morning since being hospitalized. He feels exhausted when he wakes up in the morning and feels that he can only sleep for a while in the morning to the evening. He still complained of not being able to sleep well and explained that the patient had difficulty sleeping due to headaches that appeared every night and made him very disturbed. He denied any sadness or anxiety or feeling tired and uninspired before being hospitalized. He also never made a suicide attempt. The patient said he currently never sees unreal shadows or whispering sounds, that are only seen or heard just by him. He had a good appetite. He was also still taking care of himself before he became ill (Bachem & Casey, 2018; Ghai et al., 2022; Abonmai et al., 2022).

The patient was interviewed again on April 21, 2022. The patient stated his name correctly, well oriented to time and place. He could repeat the examiner’s name. When he was required to count 100 minus 7 subsequently, he could only answer 1 time correctly. He did not answer to spell backward “WORLD”. He could only remember 2 objects out of the 3 names of objects after being redirected to another talk. Patients can mention the similarities between citrus fruits and tennis balls are both round, the difference between the two is that citrus fruits can be eaten and tennis balls for playing. The patient simply remains silent while closing his eyes when asked to continue the proverbial raft upstream, swimming to the edge.

He said that one day before entering the hospital, he felt exhausted because he drove his wife from Denpasar to Besakih Temple. He complained of headaches one day before entering the hospital, but could still be detained and was still able to carry out his usual activities. He initially finished driving to the market at 03.00 WITA. He vomited when he got home, as well as complained of dizziness, his gaze turned, and then fell unconscious. His child then immediately takes him to the hospital. He was wandering "door, it's up", sometimes spokes incoherently, and agitated. He was still difficult to sleep, often waking up at night and can only sleep for a while, or during the day the patient can sleep but not for long. He often complained of a headache. Patients can sleep from morning to noon even if they sleep only for a short time. Sometimes, he felt sad and tired of the past month. The patient said before being admitted to the hospital did not have sleep disorders (Richardson, 2007; Morin & Benca, 2012; Portzky et al., 2005).

He told that he usually goes to bed at 9:00 p.m. He often drives his wife to the market to sell at 02:00 a.m then go home and immediately goes back to sleep, and then gets up early, usually at noon. 07.00 WITA. and did not wake up at night. Patients say they usually sleep in a dark atmosphere. The history of frequent forgetting is denied and before illness, the patient can still do activities properly. The patient is currently out of work and last worked when he was 60 years old in the Personnel department at the Restaurant in the Denpasar area. Patients diligently participate in

worship activities and a few days before entering the hospital are still busy taking care of religious ceremonies in their village. his wife sells in the market. Patients before illness have no history of frequent forgetting and can still do activities properly. The patient is currently out of work and only occasionally still occasionally helps his wife sell in the market.

The patient before the illness is a neat and well-planned person that corresponds to his previous work history. The patient said he tended to harbor his problem and was only willing to tell his wife about the problem. Patients also sometimes refer their problems to positive things, such as exercising and going for a walk. The patient's family is also said to have no history of sleep disorders and never got treatment from a psychiatrist. The patient said he had suffered from lung disease and was hospitalized in 2014. After that, the patient has never suffered from pain or received pain treatment before. The patient has never had a previous history of high fever, seizures, or systemic disease. The patient was only diagnosed with diabetes after being hospitalized. Patients say they drink coffee 1 cup/day, do not drink alcohol, smoked since junior high school, but have now stopped since getting sick 7 years ago, and have never taken drugs without a doctor's prescription or the use of other psychoactive substances (Sateia, 2014; Gozal, 2009; Laposky et al., 2016).

On physical examination, vital signs are normal. There were elongated expiratory, rales in the lung. Neurological status was normal. The psychiatric status was found an age-appropriate face, looked like an uncomfortable face, and lying on the bed. The patient's verbal and visual contact is sufficient. His mood and effects are dysphoric and harmonious. His thought processes were logical realistic, coherent, and preoccupied with the headache. Hallucinations, illusions, depersonalization, and derealization do not exist. Hypobulia and raptus are absent, but there is mixed-type insomnia, insights 4.

The results of laboratory examinations found an increase in white blood cells 12.62 with neutrophil dominant. The HbA1C examination was found to be 6.8%. The lumbar puncture showed a turbid color, opening pressure 10 cmH2O, nonne pandy +++, pleocytosis (3723) predominantly poly (86.3%), glucose 44 (low), total protein 95.2 (high). The results of the x-ray and urinalysis were normal. Patients have also been tested for psychometric examinations in the form of ISI 19, PSQI >5 (16), High-Risk OSA, and HDR 11 (mild depression). The diagnosis of patients according to PPDGJ III is Axis 1: Adjustment Disorders With Predominant Symptoms of Sleep Disorders (F43.28), Axis II: Anancastic personality characteristic, Repression and Sublimation defense mechanism, Axis III with Suiss Meningoencephalitis, Acute kidney injury, and Type 2 diabetes mellitus, Axis 4 with Problems with the disease, Axis 5 with current GAF 50-41 and One-year last GAF 81-70. Therapies from neurologists namely dexamethasone injection, Ceftriaxone injection 2 grams every 12 hours IV, Ranitidine and Paracetamol. Internists gave Insulin therapy (Owens, 2007; Buysse et al., 2011; Espie, 2007).

Discussion

The patient has behavioral and psychological symptoms that are clinically quite meaningful and cause suffering (distress) and disability in daily life which indicates that the patient has a mental disorder. There was no history of using other drugs, or signs of intoxication or withdrawal, making mental and behavioral disorders due to the use of psychoactive substances can be eliminated. The anamnesis, physical and psychiatric examinations showed that the patient had a disorder, as well as resulting in a mental disorder suffered at this time so organic mental disorders could be established with a diagnosis of Axis I according to PPDGJ III is Adjustments Disorder to Predominant Symptoms of Sleep Disorders (F43.28).

The waking/sleeping complaints experienced by the patient are not caused because no opportunity/time to get enough sleep or an uncomfortable environment (the environment is safe, dim, calm, and comfortable) to sleep, so that the patient does not experience Non-Organic Insomnia (F51). There were also complaints of sadness before illness and feeling exhausted in this patient, but the symptoms did not adequately meet the criteria for depression, so the patient was not diagnosed with a Mild Depressive Episode Without Somatic Symptoms (F32.00).

Conclusion

Based on the psychodynamic analysis, there were several biologic factors found in this patient, such as the presence of a decrease of consciousness with a diagnosis of Suiss Meningoencephalitis. This biological factor makes the patient feel sad, and worried has a sleep disorder, and has maladaptive thoughts. From a psychological point of view, the patient feels uncomfortable with the environment in the hospital dan often thinks about the condition of his disease. He needs attention to the affection of his parents and the nuclear family. From a social perspective, the patient began to feel uncomfortable being hospitalized for a long because he couldn’t do anything. In this case report,

it can be concluded that Adjustments Disorder to Predominant Symptoms of Sleep Disorders (F43.28) with Suiss Meningoencephalitis. The treatments should consist of pharmacological and non-pharmacological therapy.

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