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# Comorbidity Fibromyalgia with Depression in Geriatric: Case report

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**Abstract**---Fibromyalgia is a chronic disorder of widespread pain, often accompanied by fatigue and sleep disturbances, fatigue, and muscle stiffness. Depression and chronic pain are inherent in the elderly population. It is estimated that 13% of the elderly population will suffer from both conditions simultaneously. In this case report, a 65-year-old woman was treated in Wijaya Kusuma room Prof. Dr. I.G.N.G General Hospital, consulted from Internal Medicine – Geriatric Division colleague because because of the sadness. the body covered by a blanket, an Nasogastric Tube attached to the nose, and an intravenous line in the left hand. The patient did not look into the examiner's eyes, daydreamed, occasionally cried during the interview process. The patient feels that she is easily tired and has lost her enthusiasm for the last 3 months accompanied by feelings of hopelessness and. The patient has difficulty initiating and maintaining sleep because of the pain she feels. The patient said that the pain she felt was 7 if it was counted from 1 to 10. The patient's appetite decreased and was lazy to take care of herself because she felt full of limitations. After 1 week in treatment with Psychiatry with psychoeducation, supportive psychotherapy, cognitive behavioral therapy, as well as pharmacological therapy of Sertraline 25 milligrams and Clobazam 10 milligrams, the patient was able to sit up, seemed to smile occasionally because the pain had subsided. Feelings of sadness began to lessen. Patients can sleep after taking Clobazam at night, although not very well. The patient's appetite has improved, although occasionally he still vomits.

**Keywords**---depression, fibromyalgia, geriatric, pharmacological therapy, psychiatry

## Introduction

Aging is an unavoidable process and represents the accumulation of changes in the body over time. Depression and chronic pain are inherent in the elderly population. It is estimated that 13% of the elderly population will suffer from both conditions simultaneously (Zis et al., 2017). Chronic pain that is often found in the elderly is Fibromyalgia. Fibromyalgia is a chronic disorder of widespread pain, often accompanied by fatigue and sleep disturbances, fatigue, and muscle stiffness. The cause of Fibromyalgia is unknown. Fibromyalgia was originally thought to be an inflammatory muscle disease, but in fact, no abnormalities were found on muscle biopsy or identifiable tissue or nerve damage, so fibromyalgia was classified as functional pain. In a study using magnetic resonance spectroscopy, there was no difference in high-energy phosphate levels between fibromyalgia patients and the control group, while functional magnetic resonance imaging studies of the brain showed that pain responses in fibromyalgia patients

could be elicited by lower excitatory stimuli than controls. This study supports the theory that fibromyalgia is associated with impaired processing of pain stimuli in the central nervous system (Purwata, 2014). The peak prevalence of Fibromyalgia reaches between 50 and 70 years, and it can be difficult to diagnose and treat because of other comorbid conditions. Recent studies have shown that neurodegenerative conditions can be complicated by chronic pain such as fibromyalgia because it can develop into perikual and psychological symptoms (Hughes, 2021). Fibromyalgia is often comorbid with depression. This is because when a person is depressed, the amount of the neurotransmitter serotonin in the brain will be low. Serotonin also plays a role in the process of peripheral and central sensitization and can also inhibit pain in the descending pain pathway. Low serotonin causes an increase in pain sensitivity in the body. In addition, serotonin has a calming and sleep-modulating effect. That is why people who experience fibromyalgia will experience fatigue and sleep disturbances (Bair et al., 2003).

In 1990, the ACR ((American College of Rheumatology) set criteria for the classification of fibromyalgia which later received several revisions related to the number of pain locations. The last criterion that is still used today is based on the 2016 revision of the ACR, namely if the patient is found to have three conditions , such as: WPI >7 and SS >5 or WPI 4-6 and SS >9, generalizing pain: pain must be present in 4 of 5 locations, pain in the area (jaw, chest and abdomen) is not included in the definition of generalized pain, and symptoms have been present for at least three months. A widespread pain index (WPI) assessment is performed on the area where the patient has experienced pain in the past week. The WPI rating is between 0 to 19. The symptom severity scale (SS) is the sum of the severity of symptoms such as fatigue, poor sleep, cognitive symptoms coupled with the severity of general somatic symptoms. The SS rating ranged from 0 to 12. Of the three symptoms symptoms during the past week, it can be seen using a scale: 0 (no symptoms), 1 (symptoms are usually mild/intermittent), 2 (symptoms are usually quite severe, but do not interfere with quality of life), 3 (symptoms are severe: symptoms continuously, interfering with quality of life). The scale range given for each symptom is: fatigue (0-3), poor sleep (0-3), cognitive impairment (0-3) plus 6 months prior to the patient's symptoms such as: headache (0-1), lower abdominal pain (0-1), depression (0-1). The fibromyalgia severity scale is the sum of the WPI and SS (Wolfe et al., 2016).

There is currently no treatment that is considered effective in treating fibromyalgia. However, there are a number of drugs that have been shown to reduce pain levels in various ways, some are 10%, 20%, up to 50% (Kang et al., 2022). Fibromyalgia clinical manifestations vary widely so that the management of Fibromyalgia patients is individualized, depending on the main clinical symptoms, comorbidities, and impaired function. In cases of difficult-to-treat Fibromyalgia, a multidisciplinary approach is recommended. The goals of Fibromyalgia therapy are to relieve pain, treat comorbidities, and improve quality of life (Arnold et al., 2016). The rationale for the use of antidepressants is based on some evidence that antidepressants can inhibit the reuptake of serotonin and norepinephrine in the synaptic cleft, thereby enhancing descending pain inhibitory pathways and reducing pain perception. Antidepressants are effective in treating depression and anxiety disorders that often accompany Fibromyalgia. Some antidepressants have NMDA antagonist effects and ion channel blocking activity that can enhance their antinociceptive effects (Sadock et al., 2017).

Pharmacological therapy in fibromyalgia patients can use the anticonvulsant drug pregabalin (PGB) which has been approved by the United States Food and Drug Administration (FDA) for the treatment of fibromyalgia. Pregabalin hyperpolarizes neurons so that it can lower the pain threshold of sensory neurons which causes a decrease in pain. In addition, pregabalin is also believed to reduce the magnitude of the increased pronociception process in fibromyalgia patients (Adams & Sim, 1998). In addition, it is also recommended to give selective serotonin and norepinephrine reuptake inhibitors (SSNRIs) in the form of duloxetine which are useful for fibromyalgia patients with or without symptoms of depression (Kang, 2022). Tricyclic groups, eg amitriptyline and nortriptyline. Low doses have moderate effects, such as improved sleep quality and pain symptoms, but are less useful for fatigue and tender points. Be careful with anticholinergic, antiadrenergic, antihistaminergic, and quinidine-like side effects, especially in elderly patients (Tzadok & Ablin, 2020). The SSRI groups that can be used include escitalopram, citalopram, fluoxetine, paroxetine, and sertraline. Recent research has shown that SSRIs significantly reduce pain and fatigue and improve mood. Non-pharmacological therapy for fibromyalgia is in the form of psychoeducation to patients regarding the explanation of the disease and the goals of treatment. In addition, nutritional therapy, physical exercise, and cognitive behavioral therapy are also needed to reduce pain, relieve somatic symptoms and improve quality of life (Kaltsas & Tsiveriotis, 2002).

## Case Report

The patient is a 65-years-old woman, Hindu, Balinese, married, retired teacher, living in Denpasar, was treated in Wijaya Kusuma room Prof. Dr. I.G.N.G General Hospital, consulted from Interna Medicine – Geriatric Division colleague because of the sad look on her face. The patient was interviewed on June 29, 2022 in a lying position in the

room bed, the body covered by a blanket, an Nasogastric Tube attached to the nose, and an intravenous line in the left hand. The patient did not look into the examiner's eyes, daydreamed, occasionally cried during the interview process. The patient complains of pain in several areas of the body such as the trunk, chest, and legs so that her feelings are currently uncomfortable. The patient has been feeling this pain since 3 years ago until she is unable to stand up. The patient also has difficulty swallowing so that he continues to vomit and there is no food that the body can digest. Since then, the patient has been fitted with feeding aids, namely an Nasogastric Tube in the nose and is replaced once a month by a homecare nurse (Citradewi et al., 2022; Priyanka et al., 2022). The patient is said to have experienced improvement 3 months ago, in March 2022, the patient began to stand and walk alone even though she used a cane but still had a Nasogastric Tube (NGT) tube attached. In June 2022 the patient returned with nausea, vomiting, weakness, leg pain, and difficulty walking or standing so she was taken to the hospital. The patient feels that she is easily tired and has lost her enthusiasm for the last 3 months accompanied by feelings of hopelessness. The patient feels that she is not strong enough to go through all this and is pessimistic about her recovery so that the patient thinks that he is better off just dying. The patient neither sees shadows nor hears sourceless sounds. The patient has difficulty initiating and maintaining sleep because of the pain he feels. The patient said that the pain she felt was 7 if it was counted from 1 to 10. The patient's appetite decreased and was lazy to take care of herself because she felt full of limitations. This is the first time the patient has been treated by a psychiatrist (Kessler, 2003; Noble, 2005).

The patient is currently being treated with Fibromyalgia, Dysphagia et causa suspected esophageal candidiasis, type 2 DM, Hypoalbumin et causa chronic inflammation, Suspected CAD, suspected HHD, ACKD et causa prerenal suspension on CKD. Previous had no psychiatric disorders, either from the patient or in her family. There was no history of drinking coffee, alcohol, smoking, or using other prohibited substances. The patient said she had no history of being excited for no reason, talked a lot, liked dangerous activities, spent money aimlessly, and never had a history of not needing sleep before getting sick. The patient is a woman with 3 children and 3 grandchildren. The patient's three children are already working and married, so the patient lives alone with her husband. The patient and her husband are retirees, so to pass the time, the patient's husband has opened a Café near the house for the last 1 year and the past few months have been crowded with visitors, so the husband helps handle the work at the Café while the patient is alone at home. The patient said that she was used to being with her husband, felt lonely and uncomfortable if her husband left her to take care of the Café. The patient never told this to her husband and tried to keep herself busy at home with various activities assisted by a household assistant but suddenly her legs and other body parts felt sore but could relieve by resting (Clauw et al., 2011; Clauw, 2009).

The patient's diagnosis according to the Indonesian Mental Disorders Classification and Diagnosis Guidelines III (PPDGJ-III) on Axis I was Major depressive disorder, single episode, severe without psychotic features (F32.2). In Axis II, personality traits are dependent with MPE repression and somatization. On Axis III, general medical conditions were found Fibromyalgia, dysphagia et causa suspected esophageal candidiasis, type 2 DM, Hypoalbumin et causa chronic inflammation, Suspected CAD, suspected HHD, ACKD et causa prerenal suspension on CKD. Axis IV has a problem with primary support group, and on Axis V it is rated 50-41 where it is stated that the patient has serious symptoms and severe disability. The best GAF in the last year is rated 80-71 where it is temporary and manageable symptoms, mild disability in social, work, school, and others. Patients were given, psychoeducation, supportive psychotherapy, cognitive behavioral therapy, and pharmacological therapy with Sertraline tablets of 25 milligrams every 24 hours intraorally (morning) and Clobazam tablets of 10 milligrams every 24 hours intraorally (night). After 1 week in treatment with Psychiatry with psychoeducation, supportive psychotherapy, cognitive behavioral therapy, as well as pharmacological therapy of Sertraline 25 milligrams and Clobazam 10 milligrams, the patient was able to sit up, seemed to smile occasionally because the pain had subsided. Feelings of sadness began to lessen. Patients can sleep after taking Clobazam at night, although not very well. The patient's appetite has improved, although occasionally he still vomits (Hamaker et al., 2012; Schneider et al., 1997).

## Discussion

The patient is a 65-years-old woman, Hindu, Balinese, married, retired teacher, living in Denpasar, treated in Wijaya Kusuma room Prof. Dr. I.G.N.G General Hospital, was consulted from Interna Medicine – Geriatric Division colleague because of the sadness. The patient did not look into the examiner's eyes, daydreamed, occasionally cried during the interview process. The patient complains of pain in several areas so that her feelings are currently uncomfortable since 3 years ago until she is unable to stand up. She also use Nasogastric Tube for feeding because difficulty swallowing. The patient is said to have experienced improvement 3 months ago, in March 2022, the patient began to stand and walk alone even though she used a cane but still had a Nasogastric Tube (NGT) attached. In June

2022 the patient returned with nausea, vomiting, weakness, leg pain, and difficulty walking or standing so she was taken to the hospital (Bzdok & Meyer-Lindenberg, 2018; Montague et al., 2012). The patient feels that she is easily tired and has lost her enthusiasm for the last 3 months accompanied by feelings of hopelessness and. The patient has difficulty initiating and maintaining sleep because of the pain she feels. The patient said that the pain she felt was 7 if it was counted from 1 to 10. The patient's appetite decreased and was lazy to take care of herself because she felt full of limitations. This is the first time the patient has been treated by a psychiatrist. The patient is a geriatric patient with fibromyalgia comorbid depression which makes the patient's condition worse. One week after giving psychoeducation, supportive psychotherapy, cognitive behavioral therapy, as well as antidepressant and benzodiazepine pharmacological therapy, namely Sertraline and Clobazam, were able to improve the patient's condition. The main complaint that makes the patient experience sadness can also be resolved (Vaduganathan et al., 2020; Pirastu et al., 2006).

## Conclusion

The importance of Psychiatric co-care in geriatric patients with Fibromyalgia due to depression and chronic pain is inherent in the elderly population. It is estimated that 13% of the elderly population will suffer from both conditions simultaneously. Multidisciplinary treatment of fibromyalgia is able to improve the patient's quality of life as shown in this case report where the patient experienced improvement after comprehensive treatment with Psychiatry.

## Declaration

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Conflict of interest: There is no other party's interest.

Ethical approval: Not required

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