

## Management Of Fibromyalgia In Breast Cancer Patient: A Case Report

Imam Ghozali<sup>1</sup>, M. Ramli Ahmad<sup>2</sup>, Ari Wahyuni<sup>1</sup>

<sup>1</sup> Department of Anesthesiology and Intensive Therapy, Abdul Moeloek General Hospital, Faculty of Medicine, University of Lampung

<sup>2</sup> Department of Anesthesiology, Intensive Therapy and Pain Management, Faculty of Medicine, University of Hasanuddin Makassar

### Abstract

Fibromyalgia syndrome (FM) is defined as a common rheumatological syndrome characterized by chronic, diffuse musculoskeletal pain, and tenderness with several associated symptoms, among which sleep disturbances, fatigue, and affective dysfunction are particularly frequent. Fibromyalgia syndrome (FMS) is a chronic disease, characterized by widespread pain, sleep disorders, and fatigue. we reported a female patient, 75 years old with chief complaint pain on the whole of her body. Patient feeling fatigue weakness, depression. The pain was increasing every day after diagnoses left breast carcinoma.

**Keywords:** Breast Cancer, fibromyalgia, widespread pain.

Korespodensi : Imam Ghozali, Dr. Rivai Street, No. 6, Phone : (0721) 703312, Bandar Lampung, Lampung

### Introduction

Chronic widespread pain (CWP) is the main symptom of fibromyalgia (FM). Fibromyalgia is the most common symptom in chronic pain. The prevalence is predicted by about 10 million people in the U.S an estimated 3-6% of the world population. Fibromyalgia found in women around 75-90% than in men. Sometimes, fibromyalgia symptoms can be accompanied by other symptoms or with other diseases such as cancer. The misdiagnose of fibromyalgia will have an impact on 's clinical outcomes. The earlier fibromyalgia found and treated, the easier to recover<sup>1</sup> Fibromyalgia may be inherited from families. The diagnosis of fibromyalgia is also most often found at the age of 20-50 years and the incidence continues to increase with age, even up to age 80 years.<sup>2</sup>

### Case

A 74 years old female patient with a chief complaint is a pain in the whole of the body. The pain was felt since  $\pm$  4 months ago. Initial pain felt in the back and right calf and then increased in almost all bodies. Currently, the pain has been felt in both head, neck, shoulders, arms, abdomen, lower back, buttocks, thighs, and both calves, especially the right calf, which was very disturbing in the last two months making it difficult to sleep.

The pain becomes worse since two weeks ago. She suffers not only from pain but also tired and weak muscles. Complaints of pain are felt every day after returning from treatment in Singapore with a diagnosis based on the results of a left breast cancer biopsy.

The patient sometimes feels headaches and depressions. General situation, patient looks ill, suffering and weak, Head to toe and vital sign: compos mentis, blood pressure 160/80 mmHg, heart rate 112 x / minute, respiration rate: 16x/minute, VAS score 8, temperature: 36.8<sup>0</sup>C, thorax: left lump diameter 30x25x20 mm soft solid consistency and others were normal. To ensure this patient was depressed or not, we used a PHQ-9 score (Patient Health Questionnaire-9). We founded that the PHQ-9 score was 21. This score means the patient's condition was in severe depression (score must 20-27). Widespread pain index (WPI) and symptom severity score are used to check whole-body pain or widespread pain. We got WPI to score  $\geq$  of 7 (16) and SS score  $\geq$ 5 (6). This score is enough to confirm fibromyalgia diagnosis.

The patient given an oral pain killer combination, Tramadol 37,5 mg and Paracetamol 375 mg per 12 hours, Pregabalain 150 mg every 12 hours and the last is Morphine intermediate release 10 mg for breakthrough pain. After 5 days, WPI score in

range 5-6 from 8 and SS score is 1 from 4, but the patient still feeling depressed, useless, could not sleep in the night and wasn't feel pain improvement. The next day, the pain killer is changed with paracetamol 500 mg/6 hours, fluoxetine 10 mg/12 hours and pregabalin with the same dose. After 3 weeks, the patient was coming for controlling, the VAS score 1-3 with WPI score 2 and SS score 1, the patient was sleeping in the night and for all of that patient said she satisfied no fatigue, no feeling weakness, and no feeling depressed. The treatment continued for 4 weeks.

### Discussion

Fibromyalgia syndrome is mainly characterized by pain, fatigue, and sleep disruption. The etiology of fibromyalgia is still unclear, many factors such as, genetic, immunological, and hormonal, may play an important role. The diagnosis is typically clinical (there are no laboratory abnormalities) and the physician must concentrate on pain and its features. Additional symptoms (e.g., Raynaud's phenomenon, irritable bowel disease, and heat and cold intolerance) can be associated with this condition.<sup>3</sup> Fibromyalgia was diagnosed by symptoms using ACR (American College of Rheumatology) criteria 2016. the criteria are Criteria A patient satisfies modified 2016 fibromyalgia criteria if the following 3 conditions are met:

1. Widespread pain index (WPI)  $\geq 7$  and symptom severity scale (SSS) score  $\geq 5$  OR WPI of 4–6 and SSS score  $\geq 9$ .
2. Generalized pain, defined as pain in at least 4 of 5 regions, must be present. Jaw, chest, and abdominal pain are not included in generalized pain definition.
3. Symptoms have been generally present for at least 3 months.
4. A diagnosis of fibromyalgia is valid irrespective of other diagnoses. A diagnosis of fibromyalgia does not exclude the presence of other clinically important illnesses if we look at the criteria for fibromyalgia for this patient it will be seen that the ACR 2016 criteria from points 1 to 4 are matched by this patient; pain for more than 3 months, pain in 4-5 regions and the presence of WPI and SS scores

totaling WPI score  $\geq 7$  (16) and SS score  $\geq 5$  (8) and even was diagnosed with breast carcinoma, we founded in clinical symptoms, there was no correlation with her breast carcinoma.

Fibromyalgia symptoms can worse by several diseases or conditions. Persistent peripheral pain generators (spinal and/ or peripheral arthritis, tendinopathies and myofascial trigger points), sleep disorders (obstructive sleep apnoea, restless legs, and periodic limb movement disorder), obesity (with consequent pain-sensitizing effects of meta-inflammation), smoking, opioid-induced hyperalgesia, depression, psychosocial stressors<sup>5</sup>. In this patient, we found not only fibromyalgia but also depression based on the PHQ score. PHQ-9 score showed severe depression. Fibromyalgia and depression might represent two manifestations of affective spectrum disorder. They share similar pathophysiology and largely targeted by the same drugs with dual action on serotonergic and noradrenergic systems.<sup>6</sup> The etiology and pathogenesis of fibromyalgia are still not fully understood. Several factors such as dysfunction of the central and autonomic nervous systems, neurotransmitters, hormones, immune system, external stressors, psychiatric aspects, and others seem to be involved.<sup>1</sup> The goals of fibromyalgia treatment are to alleviate pain, increase restorative sleep, and improve physical function through a reduction in associated symptoms. The identification and treatment of all pain sources that may be present in addition to fibromyalgia such as peripheral inflammatory or neuropathic pain generators (e.g., comorbid osteoarthritis or neuropathic pathologies) or visceral pain (e.g., comorbid irritable bowel syndrome), cancer are central to the proper clinical management of fibromyalgia. Because of pain, depression, and other symptoms of fibromyalgia are linked to inherited and environmental causes, they need a multifaceted treatment approach which often required including both nonpharmacological pain.

This patient got a pharmacological approach. Pharmacological management of

fibromyalgia is low-dose tricyclic antidepressants (amitriptyline), serotonin-norepinephrine reuptake inhibitors (duloxetine, fluoxetine), selective serotonin reuptake inhibitors and antiepileptics (gabapentin, pregabalin).<sup>1</sup> For this patient, I gave her paracetamol and fluoxetine is the final best option because with this formula patient satisfied. Fluoxetine is a selective serotonin reuptake inhibitor (SSRIs).

People with fibromyalgia suffer from chronic widespread pain, sleep problems, and fatigue. There is no cure for fibromyalgia at present. Treatments aim at relieving the symptoms and improving health-related quality of life. Serotonin is a chemical that is produced by the human body and is involved in the experiences of pain, sleep, and mood. Decreased concentrations of serotonin have been reported in people with fibromyalgia. SSRIs are antidepressants that increase the concentration of serotonin in the brain. SSRIs are not approved as a fibromyalgia treatment but for depression and anxiety disorder<sup>8</sup>. Therapy using paracetamol and fluoxetine give a good result, the patient is released from pain, has a better mood, good sleep every night didn't feel depressed and the most important thing is she can do a daily activity without feeling disturbed.

### Conclusion

Fibromyalgia is a complex syndrome that is often difficult to diagnose, particularly for physicians who do not usually deal with this disease. Pathogenesis is still be considered a diagnosis of exclusion: the recently published ACR 2010 criteria help us to determine all the differential diagnoses for fibromyalgia. A multidisciplinary approach is optimal, the physician must take into consideration both drugs (in particular antidepressants and neuromodulating antiepileptics) and nonpharmacological treatment.

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