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Ivada, P. F., Ardani, I. G. A. I., Lesmana, C. B. J., Windiani, I. G. A. T., Adnyana, I. G. A. N. S., & Fithriyah, I. (2022). Quality of life of pediatric patients experiencing organic depressive disorder with Juvenile Idiopathic Arthritis: Case report. *International Journal of Health & Medical Sciences*, 5(4), 313-317. <https://doi.org/10.21744/ijhms.v5n4.1994>

Quality of Life of Pediatric Patients Experiencing Organic Depressive Disorder with Juvenile Idiopathic Arthritis: Case report

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Abstract---Depression is a fundamental disorder characterized by mood swings of feelings or affects towards depression with or without accompanying anxiety? Juvenile Idiopathic Arthritis (JIA) is a chronic inflammatory condition in children. JIA is defined as the presence of objective signs of arthritis in at least one joint that lasts more than six weeks in children less than 16 years of age, and other types of arthritis in children have been removed. Children with JIA may also often experience depressive episodes and other psychosocial disorders during the disease. Affective disorders in childhood can predict the recurrence of depressive episodes. In the case report, a 7-year-old was consulted because he looked sad. The sadness has been felt for two months and has worsened since two weeks ago, originally due to JIA Patients can usually carry out daily activities as usual. Nowadays, the patient has no desire and gets tired quickly, especially when doing ordinary activities; difficulty feeling joy, feeling guilty, worrying that the pain will not heal, despairing of not wanting to go to school, and being unable to follow lessons because of weakness, unable to walk, unable to write because of pain and swelling in his hands. Patients receive oral therapy of 10 mg of Fluoxetine every 24 hours, supportive psychotherapy, and family psychoeducation. The overall quality of life was worse in JIA Patients with higher depression scores.

Keywords---case report, depression, experiencing organic, Juvenile Idiopathic Arthritis, quality of life.

Introduction

Juvenile Idiopathic Arthritis (JIA) is a chronic inflammatory condition in children (Al-Mayouf, 2018). JIA is defined as the presence of objective signs of arthritis in at least one joint that lasts more than six weeks in children less than 16 years of age, and other types of arthritis in children have been removed (Fair et al., 2019). In JIA pathophysiology, there are at least two things that need to be taken into account: hyperactivity related to HLA and environmental originators whose possibilities are viruses. Many etiological factors can cause clinical symptoms of the JIA with various causative factors such as infection, autoimmune, trauma, stress, and immunogenetic factors (David, 2017). Clinical symptoms of JIA are joint pain and stiffness in the morning for 15 minutes, joint pain/stiffness increases daily, and with activity, joint stiffness after prolonged inactivity and joint swelling, which causes a decrease in range of motion (ROM). Systemic symptoms can initiate the development of arthritis with the characteristic high spiking fever (an increase in body temperature up to 39°C or higher, daily or two times a day, followed by a rapid decrease in the basal body temperature or lower) (Hahn & Kim, 2010).

Depression is a fundamental disorder characterized by mood swings of feelings or effects towards depression with or without accompanying anxiety (Sadock et al., 2016). Depressive disorders in children and adolescents often go undetected or treated. The beginning of the appearance of depressive disorders in children and adolescents is often behavioural and physical complaints that may obscure depressive symptoms as they appear in adults (Noorhana, 2016). Children suffering from chronic diseases have a higher rate of depression than the general population. The study found a significant increase in symptoms of anxiety and depression in children one month after diagnosis and continued to experience an increase in symptoms throughout the first year of therapy (Fair et al., 2019). Children with JIA may also often experience depressive episodes and other psychosocial disorders during the disease. Symptoms of depression include limited daily activities that may condition children, changes in body image, growth retardation, visual symptoms, limited leisure time, and frequent visits to the doctor (Memari et al., 2016). All of the above symptoms can eventually lead to depression which can be correlated with the development or activity of the disease. Many studies have shown that affective disorders in childhood can predict the recurrence of depressive episodes (Sur et al., 2021).

JIA Management requires a multidisciplinary approach. The four pharmacological classes used in JIA management: NSAIDs, Corticosteroids, DMARD (Disease Modifying Anti Rheumatic Drugs) including sulfasalazine, azathioprine, hydroxychloroquine, leflunomide, cyclosporin, and methotrexate, biologic DMARD, such as monoclonal antibodies, dissolved cytokine receptors, and antagonistic receptors with specific protein targets in inflammatory cascades (Nijhof et al., 2018). Nonpharmacological management, such as physical and occupational therapy, is recommended, and new research is expected to identify the benefits of appropriate, better interventions and modalities for specific subtypes (Ringold et al., 2019). Psychiatric consultation is beneficial because children with JIA can experience anxiety and/or depression due to chronic pain or emotional disorders due to a decrease in average activity ability (Jacobson & Jennifer, 2018).

Pharmacological and non-pharmacological management can be given under these conditions. Antidepressant drugs can be used as an initial treatment modality for patients with depression. Many antidepressants have been shown to have almost the same effectiveness. Second-generation antidepressants, SSRI and SNRI, are the most common pharmacological agents used to treat depression (Gartlehner et al., 2017). Psychotherapy for depression arises from psychoanalytic and psychodynamic interventional models. Psychotherapeutic intervention emphasizes the development of conflict insights through the use of free associations and the interpretation of therapists (Sadock et al., 2016). Throughout the literature, depressive symptoms have consistently correlated with the impaired overall quality of life (Fair et al., 2019). More than three-quarters of patients with significant depressive symptoms have a poor quality of life (Abdul-Sattar et al., 2014). The overall quality of life was worse or impaired in JIA patients with higher depression scores (Fair et al., 2019).

Case Report

The patient is a 7-year-old girl, Islam, NTB. He is currently in the first grade of elementary school, unmarried, and has the status of a student. The patient is referred to the psychiatric department with complaints of grief. The patient experiences a change in behaviour after complaining of the current pain. The patient becomes quiet and rarely socializes. The patient's consciousness is still evident, and speaking is not tricky. The patient felt a sadness that had already started two months ago and worsened in the last two weeks while visiting the hospital. The patient becomes sad, accompanied by quickly tired, difficulty feeling joy, feels guilty, worries that the pain will not heal, despairs of not wanting to go to school, unable to attend lessons due to weakness, inability to walk, unable to write because of

pain and swelling in his hands. Patients feel uncomfortable playing with their friends, so they prefer to stay at home. The patient also has a sleep disorder due to thinking about pain and decreased appetite (Gayle et al., 2013; Nallamshetty et al., 2003).

The patient was diagnosed with Systemic JIA partially controlled since April 2022 at RSUP Prof dr I.G.N.G Ngoerah. Patients are said to initially often complain of fever and body aches, left chest pain disappears, and palpitations since four months ago. Hospitalized 2 times at Mataram Hospital. Both wrists are painful and swollen, and redness in the left wrist since two months ago. The patient was referred to RSUP Prof dr I.G.N.G Ngoerah because the complaints did not improve. The patient seems to change in behaviour, looking sad since the illness. Therefore, the paediatrician consulted the patient with a psychiatrist specialist on April 19, 2022. After conducting a psychiatric examination, the patient receives 10 milligrams of fluoxetine therapy every 24 hours intraorally, taken every night. According to his mother, the patient was born typically and experienced average growth and development. The patient was the first of two children. Patients are said to live with both parents but are often deposited at their grandmother's house if both parents work. The patient feels that his parents are different. He needs attention to the affection of his parents and the nuclear family. The patient is said to have been a cheerful and sociable child; he is said to be introverted when there is a problem and more often harbours (McKay et al., 2006; Altar, 1999).

On physical examination, a pain scale of 6/10 was found, malnutrition status, as well as generalist status, Regio wrist dextra et Sinistra: Tenderness (+/+), Oedema and redness in *digiti one sinistra* to thenar muscle, limited ROM., unable to hold a glass or pencil. Examination of psychiatric status found a natural appearance, moody, lack of verbal and visual contact, clear consciousness, depressive affective sad mood, in the thought process obtained poor thought flow of speech, poor thought content ideas. In perception are not obtained hallucinations and illusions. There is insomnia and hypobulia, and psychomotor calm. The patient has a cheerful and sociable nature. The CDI scale examination obtained a score of 31. PK laboratory results (30/04/2022: Ana IF: 1/100 indicates the presence of autoimmune disease) (EL-Maturity et al., 2022; Sharma & Pathak, 2022).

The diagnosis of this patient according to the Guidelines for classification and diagnosis of Indonesian Mental Disorders III (PPDGJ-III) in Axis I is an Organic Depressive Disorder (F06.32). In Axis II, the cheerful and sociable nature, the ego's defense mechanism is repression. On Axis, III is a partially controlled JIA Systemic and mild malnutrition energy protein. Axis IV problems with the disease, and in Axis V, the GAF score at the time of examination was 60-51 and the GAF for the last year was 90-81. Patients are given pharmacological therapy with 10 milligrams of Fluoxetine every 24 hours intraorally (morning), while the non-pharmacological therapy given is supportive psychotherapy and family psychoeducation. Based on pediatric therapy, a ranitidine injection of 18 mg Thirty minutes before HDMP injection (500 mg of methylprednisolone diluted 500 ml ns 0.9% in 4 hours intravenously), Methotrexate 7.8 mg ~ 3 1/4 tablets weekly (Schneider et al., 2005; Sharp et al., 2006).

Discussion

The patient is female, seven years old, weight, weight 18.5 kg, height 119 cm, Islam, NTB, an elementary school in Mataram. The patient consulted the Psychiatric department with sad complaints. The patient experiences a change in behaviour after experiencing this disease. The patient becomes quiet and rarely socializes, but her consciousness remains clear, and she has no difficulty speaking. The patient's grief began for the first time since 2 months ago and worsened in the last two weeks when he visited the hospital. The patient experiences a change in feelings to be sad accompanied by easily tiredness, difficulty feeling joy, feeling guilty, worrying that the pain will not heal, despair of not wanting to go to school, unable to follow lessons because of weakness, inability to walk, unable to write because of pain and swelling in his hands. The patient also experiences sleep disturbances due to thinking about pain and a decreased appetite, so he loses weight up to 5 kilograms. The examination using the CDI scale obtained a score of 31, meaning there was depression. The results of the Ana IF examination showed the presence of an autoimmune (Ravelli & Martini, 2007; Prakken et al., 2011).

The diagnosis of JIA was established after being treated at RSUP Prof dr I.G.N.G Ngoerah in April 2022. This case, according to PPDGJ III and DSM V, was diagnosed as Organic Depressive Disorder (F06.32). In this case, the patient experiences a change in behaviour that looks sad and quickly tired. The patient also felt that he had no hope of recovering from his current illness and was desperate, but the patient did not try to commit suicide. The patient has sleep disorders and decreased appetite. This causes the patient to be given pharmacological and non-pharmacological therapy. The patient is given pharmacological therapy with 10 milligrams of Fluoxetine, every 24 hours, orally (morning). While the non-pharmacological therapy provided is supportive psychotherapy, and the patient's family is also given psychoeducation (Papakostas et al., 2004; Wagner et al., 1996).

Patients suffering from chronic physical disease. Systemic JIA is partially controlled, causing mental disorders in the form of organic depressive disorders that can reduce their quality of life. Physical illness is known to be one of the risk factors for depression in children (Hazell, (2009). The disease causes pain, physical limitations, and eventually depression (Sur et al., 2021). Psychological problems, especially depression, are more prevalent in patients with JIA than in normal individuals, with a significant incidence of clinical depression ranging from 7 to 36 % in children with JIA (Bano et al., 2020). The relationship between chronic inflammation in JIA by measuring serum samples from neurotransmitter panels in children with active JIA showed that the ratio between specific neurotransmitters indicated a possible increase in enzyme activity in the dopamine and serotonin pathways. This may explain the pathway between active inflammation in the JIA and symptoms of depression, anxiety, fatigue, and cognitive impairment (Korte-Bows et al., 2019). This patient subsequently underwent long-term therapy for JIA disease, where he had not been fully informed of his sick condition. The quality of life in children and adolescents with JIA is lower than that of healthy peers. The overall quality of life was worse or impaired in JIA Patients with higher depression scores (Fair et al., 2019).

Conclusion

Based on the psychodynamic analysis, several biological factors are found in these patients, such as the presence of chronic inflammation with a diagnosis of JIA This biological factor makes the patient feel sad and causes maladaptive thoughts. From a psychological point of view, the patient feels that his parents are different. He needs attention to the affection of his parents and the nuclear family. From a social perspective, patients feel uncomfortable playing with their friends, so they prefer to stay at home. In this case report, it can be concluded that organic depressive disorder with JIA in children needs to be treated appropriately. Treatment should consist of pharmacological and non-pharmacological therapy. The overall quality of life was worse or impaired in JIA patients with higher depression scores.

Declaration

Funding: None

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

Ethical approval: Not required

Acknowledgments

Thank you to all those who have played a significant role and provided full support in preparing this case report. Thank you to Prof dr I.G.N.G. Ngoerah General Hospital for providing and allowing us to report this case.

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