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Neurotropic ulcer on Morbus Hansen multibacillary type Morbus patient: A challenging case to detect

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Abstract

Introduction: Leprosy is a chronic disease with various manifestations. Leprosy is also known as "The Great Imitator Disease," making this disease quite challenging to detect. Late treatment can cause deformity and disability.

Case: A 43 years old man with Hansen's Disease multibacillary leprosy type is newly diagnosed after having a chronic neurotrophic ulcer for years.

Discussion: Signs and symptoms of leprosy mimicking other diseases. Diagnosis, according to cardinal sign and the type of classification, must be determined for the necessary treatment.

Conclusion: Experience in finding early signs and symptoms of leprosy is essential for diagnosing.

Keywords: Morbus Hansen; The Great Imitator Disease; Neurotropic Ulcer

Introduction

Leprosy is a chronic disease with various manifestations such as skin or nerve lesions and the involvement of all systemic integuments and organs. ^[1, 3] Leprosy is also known as "The Great Imitator Disease" because of its similar manifestations to many other skin diseases, so it makes this disease quite tricky to be detected. The prevalence of leprosy in the world is still high, and Indonesia is in the 3rd position as a country with the most leprosy sufferers in the world. Data from WHO states that in 2018 there was an increase in new leprosy cases by 1107 cases from the previous year ^[4]. If not handled properly, complications from this disease can lead to deformities and disabilities. The burden due to leprosy disabilities in Indonesia is still high, not only having an impact on daily social activities and participation but also the economy and psychology ^[5].

Case Report

A 43-year-old man came with complaints of wounds that did not heal on his hands and feet since four years ago. Some of the wounds are painful, wet, suppurating, and accompanied by scabs. The patient feels a whole-body pain. Both feet and hands swell. The patient has an intermittent fever. The patient works as a gardener. Initially, the patient feels that his limb is weakened because when he hoes, the hoe can escape from his grip. If the patient wants to bring a glass of drinking water, the drinking water is often spilled, and the patient usually falls while riding a bicycle. Then the patient realizes that white spots like tinea versicolor appear on the back and both arms, which sometimes itching intermittently and also numbness. Since then, when the patient is injured while working, the patient wasn't feel it, and the wound is now getting worse. The patient does not know about the disease. The patient has repeatedly gone to primary, secondary, tertiary, and even overseas health facilities. However, still, no one knows the disease, and the patient feels that his condition is getting worse. For every treatment, during those four years, the patient was told that this disease was just a common skin disease. The patient felt hopeless until the patient was taken by the family for treatment again with a skin and genital specialist in Indonesia and was diagnosed with leprosy. Currently, the patient does not have any eye disorders and no history of other chronic diseases. A family history of leprosy and previous contact with leprosy patients is denied. On physical examination, vital signs of this patients within normal limits. Both eyebrows and lashes appear madarosis.

On the assessment of the dermatologic status on the left and right arm regions and back region, a well-defined oval hypopigmented macule was found with a diameter of 0.5-2cm. The examination of the sensibility of the lesion revealed a reduction in pain and touch. In the area of the manus and left pedis, there were multiple irregular ulcers; the wound bed was dirty with necrotic tissue contents, the edge was not raised, there was pus, and it was not painful. The wound is wet and smelly. There was necrosis in segment I digiti II, IV-V manus left. Generalized regions appear to be xerotic skin. Examination of the peripheral nerves revealed enlargement and tenderness of the posterior ulnar and tibial nerves. On the supporting laboratory analysis of hemoglobin 10.4 g / dL, leukocytes 13700 / μ L, SGOT 29 U / I, SGPT 75 U / I, and negative results for leprosy skin smears.

The patient was diagnosed with the Multibacillar type Morbus Hansen and was given a Multi-Drug Therapy Multibacillary (MDT MB) treatment regimen, namely a combination of Rifampicin, Clofazimine, and Dapsone for 12 months. Prednisone 40mg was given as an initial stage and was tapered off every two weeks. Given the antibiotic cefadroxil 2 x 500 mg and Metronidazole 2 x 500 mg orally. Meloxicam analgesic 2 x 7.5mg for pain relief. Vitamin B Complex 1 x 1 tablet as a neurotrophic multivitamin. The wound was cleaned using NaCl and Povidone Iodine. The necrotic part was performed with necrotomy and amputation of the second, fourth, and fifth digits of the left human digiti. After the wound is cleaned, the wound is then covered with a bandage. Verban is changed every day. Nebacetin powder containing Neomycin Sulphate and Bacitracin is applied to the wound every two times a day.



Fig 1: Madarosis Appearance in a patient with Morbus Hansen



Fig 2: Necrotomy of tissue necrosis and amputation of digits II, IV and V left human



Fig 3: Neurotropic ulcer on bilateral plantar pedis

Discussion

Leprosy is often dubbed the Greatest Imitator in skin diseases. This is because the signs and symptoms and inspection are similar to other conditions, such as in this case, hypopigmented skin lesions with intermittent itching, a differential diagnosis can be made in the form of dermatophytosis, tinea versicolor, pityriasis rosea, pityriasis alba, seborrheic dermatitis, and psoriasis. The presence or absence of anesthesia is beneficial in determining the diagnosis, although it is not always clear [6, 8]. In the patient, there is a decrease in the sensibility of the lesion that is carried out using a needle for pain and a cotton swab for touch. To establish a diagnosis of leprosy in endemic areas such as Indonesia, it is necessary to have one of the three cardinal signs determined by WHO [9, 11]. The patient has numb skin lesions with thickening of the peripheral nerves even without acid-resistant bacilli on the slit skin smear so that it has met the diagnosis criteria of leprosy.

Determination of the type or classification as the basis of therapy and management using the WHO classification, because it is adjusted to endemic areas with low resources. This patient was classified as a multibacillary Morbus Hansen because he had more than five skin lesions with indistinct numbness and had more than one peripheral nerve involvement without the presence of acid-resistant bacilli on the slit skin smear. The MB MDT regimen was administered to the patient for 12 months. There is a reversal reaction in patients who are often characterized by edema, more active lesions, and symptoms of acute neuritis, so it is necessary to use corticosteroids, namely prednisone 40mg, given as an early stage and tapered off every two weeks [12, 15]. Large neurotropic ulcers require antibiotics to prevent sepsis. Analgesics are given to reduce pain and Vitamin B Complex for roborants and neurotrophic multivitamin. The wound is cleaned and cared for every day by cleaning the necrotic tissue and keeping the wound environment clean. This patient was followed up again in the third month of treatment, and the patient experienced significant improvement. Skin lesions disappeared, no neuritis symptoms were felt, and the ulcers had improved. The AFB examination was again carried out with negative AFB results, and treatment would be continued according to the MDT MB regimen for up to 12 months.

POD examination (Prevention of Disability) is recommended to be routinely carried out because, in these patients, there has been damage to sensory, motor, and autonomic functions to prevent further disability. The use of footwear is highly recommended for patients to avoid repeated trauma due to impaired sensory nerve function in the plantar feet. [5, 16, 18].

Conclusion

Leprosy, known as The Greatest Imitator, requires experience and the ability to diagnose this disease. Early

recognition of signs and symptoms so that adequate therapy is expected to reduce deformity and disability in leprosy patients.

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