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Case Report

SEZARY SYNDROME MIMICKING GENERALIZED PSORIASIS VULGARIS

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ABSTRACT

Sezary syndrome is the leukemic variant of cutaneous T cell lymphoma. This disease is characterized by some reddish patches or plaques all over the skin which extends to the whole body into erythroderma, lymphadenopathy. It is also indicated by the presence of atypical lymphocytes called Sezary cells. This case report is aimed to know clinical manifestation, examination and management of Sezary syndrome which clinically resembles generalized psoriasis. A 60 years old man came with scaly reddish brown plaques almost all over his body. It was accompanied by lymphadenopathy on the supraclavicular lymph node right and left as well as intense itchy. Other clinical features were alopecia, palmoplantar hyperkeratosis, onychodystrophy, facies leonine without anesthesia on the lesion and enlargement of peripheral nerve. From a laboratory test, an increase in the number of leukocytes and, Sezary cells were found in peripheral blood smear examination; while the histopathology showed focal atrophy and acanthosis of the epidermis and dense infiltration of lymphocytes in the dermo-epidermal junction and superficial dermis. Patient received 3 x 5 mg (1 cycle) of methotrexate (MTX) with 0,1% cream mometasone furoate and 3x1 tablet of CTM for adjunctive therapy. Methotrexate was discontinued because there was a disturbance in liver function and deterioration of patient's condition. After 25 days of treatment, the patient got sepsis and then passed away. Early onset of Sezary syndrome in this case is difficult to know because the clinical manifestation is similar with psoriasis vulgaris. Supporting examination such as laboratory test, blood smears and histopathology examination could help the diagnosis. The presence of lymphadenopathy, and atypical lymphocytes in the peripheral blood and the extensive skin involvement reflect the poor prognosis. The most common cause of death was sepsis.

Keywords: Sezary syndrome, cutaneous T cell lymphoma, psoriasis vulgaris, erythroderma, Sezary cells

ABSTRAK

Sindrom Sezary merupakan salah satu jenis limfoma pada sel T kutaneus. Penyakit ini ditandai dengan bercak atau plak kemerahan pada kulit yang meluas ke seluruh tubuh menjadi eritroderma, limfadenopati dan terdapatnya limfosit atipikal yang disebut dengan sel Sezary. Tujuan dari laporan kasus ini adalah untuk mengetahui manifestasi klinis, pemeriksaan dan penatalaksanaan Sindroma Sezary yang secara klinis menyerupai generalized psoriasis. Seorang pria berusia 60 tahun datang dengan plak coklat kemerahan dengan skuama tebal pada hampir seluruh tubuh disertai limfadenopati kelenjar getah bening supraklavikular kanan dan kiri yang disertai rasa gatal pada lesi. Gambaran klinis lainnya adalah alopecia, hiperkeratosis palmoplantar, onikodistrofi, facies leonina tanpa anestesi pada lesi dan tanpa pembesaran saraf tepi. Pada pemeriksaan laboratorium terdapat peningkatan jumlah leukosit, pada pemeriksaan hapusan darah tepi ditemukan sel Sezary dan gambaran histopatologi menunjukkan atrofi dan akantosis fokal pada epidermis dan infiltrasi padat limfosit pada dermo-epidermal junction dan dermis superfisial. Pasien mendapatkan pengobatan methotrexate (MTX) 3 x 5 mg (1 siklus) dengan terapi tambahan krim mometason furoate 0,1% dan CTM 3 x 1 tablet. Pemberian methotrexate tidak dilanjutkan karena terjadi gangguan pada fungsi hepar pasien dan terjadi pemburukan kondisi pasien. Setelah 25 hari perawatan, pasien mengalami sepsis dan kemudian pasien meninggal dunia. Onset awal dari sindrom Sezary pada kasus ini sulit untuk diketahui karena gambaran klinisnya yang mirip dengan psoriasis vulgaris. Pemeriksaan penunjang berupa pemeriksaan

laboratorium, hapusan darah tepi dan pemeriksaan histopatologi membantu menegakkan diagnosis. Adanya limfadenopati dan ditemukannya sel limfosit atipikal pada darah tepi dan keterlibatan kulit yang luas menggambarkan prognosis yang buruk pada kasus ini. Penyebab kematian tersering adalah sepsis.

Kata kunci: sindrom Sezary, limfoma sel T kutaneus, psoriasis vulgaris, eritroderma, sel Sezary

INTRODUCTION

Lymphoma is the name for various types of cancer which emerge in the lymphocytes (immune cells). There are three types of lymphocytes: B-lymphocyte (B-cell), T-cell and the Natural Killer lymphocyte (NK-cell). In general the B-cell lymphoma is more prevalent, while T-cell lymphoma is specifically common for the skin.¹ The Non-Hodgkin Cutaneous T-cell Lymphoma is manifested on the skin. It has a variety of skin manifestations like skin patch or plaque, tumor, or erythrodermic lesions.^{1,2} The proportion of T-cell lymphoma was accounted for approximately 4% of the whole Non-Hodgkin lymphoma.¹ Among many types of Cutaneous-T cell lymphoma, Mycosis Fungoides is the slow growth clinical type while the Sezary Syndrome (SS) is an aggressive, leukemic cutaneous T-cell lymphoma variant which manifests as erythroderma. Sezary Syndrome is the most aggressive type of lymphoma due to its influence to skin and blood.^{1,2}

The incidence of cutaneous lymphoma has been increasing since the last decades and mostly occurred among black people at the age of 50–60 years old.^{1,3} Changes in the amount of tumor suppressor and gen that control apoptosis were found in Cutaneous T cell lymphoma. However, how these changes affect the T cell activities are still not clear.³ Genetic disorder of NAV3 expression (the tumor suppressor) was found in 50-85% patient. Mutations of p53, p15, p16, junB and PTEN gen were observed in advance cases.

The clinical manifestation of MF and SS may be similar with some mild dermatoses like dermatitis, psoriasis vulgaris, pityriasis lichenoides chronic, and pityriasis lichenoides et varioliformis acuta.^{2,4} There are trias in clinical symptom of SS which consist of erythroderma, lymphadenopathy and the typical Sezary cell.^{3,5} Itchy skin lesions and thick squamae especially over the palmar and plantar areas, often occurred along with alopecia. Histopathologically, the SS shows non-specific inflammatory dermatosis, but in immuno-histochemistry staining some atypical CD4 T-cells are found with the increase ratio of CD4 / CD8 recorded at more than 10.^{3,6,7} The prognosis of SS is not suitable with low remission and slow response to the few available treatment modalities.^{3,8,9}

CASE

A 60 years old man was hospitalized in the Dermatology ward of Dr. Soetomo Hospital, complaining about itchy

and thick patches all over the body in the last 3 days before admission. The erythematous plaques started in the back for a year previously and spread to the other parts of the body. He was treated at the Health Center and got some tablets and injections without any improvement; then he was referred to the hospital. One month prior to the admission to the Dermatology ward, the patient was hospitalized in the Internal Department for granulomatous lymphadenitis and treated with 3 series of Methotrexate (MTX) course. Some improvements were observed and the patient was discharged from the hospital.

In clinical examination the patient looked weak though all vital signs were normal, except for the body temperature (39°C). The enlargements of both supraclavicular lymph nodes were palpable. Thick brown plaques with some erythematous skin areas were found all over the body, while hyperkeratosis of the skin was observed with some fissures on his palms and soles. Erythematous nodules were found all over the face and alopecia of the scalp was also present. However, there was no skin anesthesia, madarosis, or thickening of the ear lobes. There was no peripheral nerve enlargements on palpation either (Figure 1-4).

Laboratory results of peripheral blood revealed a leukocytosis ($17.9 \times 10^3/\mu\text{l}$) with the increasing neutrophil. Hemoglobin of 11.2 g/dl and low albumin level (2.4 g/l) were also observed. The liver and renal function tests were in normal limits. Peripheral blood smear examination showed a typical lymphoid cell, and the Sezary cell was found (Figure 5).



Figure 1. Erythematous nodules on face and madarosis.



Figure 2. Alopecia



Figure 3. Psoriasiform plaques and infiltrated plaques with hyperkeratosis and scaling



Figure 4. Plaques with superficial erosion and fissuring on the soles

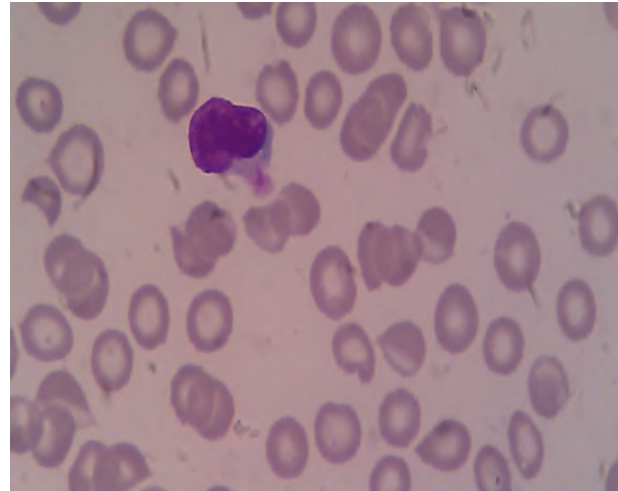


Figure 5. Sezary cell

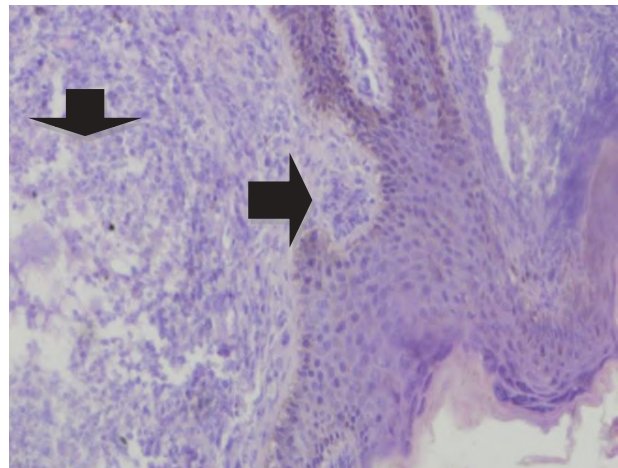


Figure 6. Focal acanthosis and dense lymphocytes (400x ampl)

In histopathological examination of the skin plaque biopsy, a hyperkeratotic corneum layer and epidermic atrophy with inflammatory process in the dermis were identified. It was indicated by the dense lymphocyte infiltrating at the dermis-epidermis junction and some focal acanthosis. There was no Acid Fast Bacilli (AFB) found in the Fite Faraco staining (Figure 6).

The diagnosis of Sezary Syndrome was established, then the treatment using Methotrexate (MTX) 3x5 mg every 12 hours (one cycle) combined with Ciprofloxacin 2x500 mg daily and Chlorpheniramine Maleat (CTM) 3x4 mg daily as the antipruritic drug was started. Physiologic saline with 10% Dextrose and 20% albumin was administered through infusion. Emollients was also applied all over his body as a topical therapy.

After one cycle of MTX therapy (3 times 5 mg, every 12 hour), the general condition of the patient got worse. Blood culture showed a positive *Staphylococcus aureus* growth, the liver function test was abnormal and the patient passed away after 25 days being hospitalized due to sepsis.

DISCUSSION

Sezary Syndrome (SS) can mimic several mild dermatoses like dermatitis, psoriasis vulgaris, pityriasis lichenoides chronica, pityriasis lichenoides et varioliformis acuta, and actinic reticuloid.^{2,4,10} These mild dermatoses can progress to erythrodermic skin lesions due to the extension of the plaques; thus it is spread all over the body. The SS patients were mostly 50-70 years old. The trias of SS are pruritic erythroderma, lymph nodes enlargement and Sezary cells in the blood circulation.^{7,11,12}

Sometimes it is difficult to differentiate SS from erythroderma which is caused by other agents, especially in a case of severe skin desquamation. However, there is an exception in some a case where the infiltration is more dominant than the desquamation.¹³

This patient fulfilled those three criteria of SS with severe skin manifestations and many other systemic symptoms. The first differential diagnosis is psoriasis vulgaris due to the thick scales; however, based on the history of early lesions sites, it does not occur in the traumatic area like elbow, knee and shoulder. Clinically, the typical scales of psoriasis were not present and the Auspitz' sign was also negative. The second differential diagnosis is leprosy reaction, such as ENL reaction, but this can be excluded if there is by no cardinal signs of leprosy identified.

Both differential diagnosis could be excluded by histopathological examination because psoriasis vulgaris and leprosy have some specific histopathological patterns. The results of the histopathological examination for the thick scale revealed focal atrophy and acanthosis of the epidermis, as well as dense infiltration of lymphocytes in the dermo-epidermal junction and superficial dermis. The result of peripheral blood smear showed the presence of Sezary cells which ensures a definite diagnosis of Sezary Syndrome on this patient.

The staging system of Mycosis Fungoides is usually applicable for SS and the clinical manifestation of this case was classified as Grade 3. The malignancy related to this condition was identified prior to or after the diagnosis of MF and SS.¹⁴

Only a few data or reports on SS cases are available. Likewise, there are limited amount of treatment available in the clinical setting due to rarity of the case. Some topical treatments could be given for SS cases, such as nitrogen mustard, corticosteroids or bexarotene. The Ultra Violet treatment has been used to control the plaques; while the systemic treatment is used when topical therapy shows no progress.^{3,8,9} Methotrexate (MTX) and other antimetabolic drugs are the other available choices to manage SS.¹⁴

In this case, MTX was only applied for one cycle and had to be discontinued due to the clinically worsening condition of the patient and the disturbance of his liver function. The low immune level of the patient was the main factor in the fatal sepsis caused by *Staphylococcus aureus* infection. This kind of situation was also reported by Mirvish et al who worked on SS cases.¹⁵

In general, the prognosis of SS is not suitable with low remission and slow response to therapy, especially for the pruritus of the skin which influences the patient's quality of life. A guide of SS management has been proposed by US Cutaneous Lymphoma Consortium (USCLC) and modified by The National Comprehensive Cancer Network (NCCN).¹¹

CONCLUSION

Sezary Syndrome (SS) is rare and relatively difficult to diagnose due to the similarities of the clinical manifestation with any skin diseases. The presence of lymphadenopathy, and atypical lymphocytes in the peripheral blood and the extensive skin involvement reflect the poor prognosis.

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