中文題目：一位 62 歲女性罹患系統性硬化症合併多發性肌炎與蕈狀肉芽腫

英文題目：A 63-year-old woman had two rare diseases as systemic sclerosis overlapping polymyositis and mycosis fungoides

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Abstract

Systemic sclerosis and mycosis fungoides were rare disease. Previous case-report reveal a 43-year-old man who initially present systemic sclerosis (SSc) and then was simultaneous diagnosed malignant T-cell lymphoma which involve soft tissue and lymph-nodes (1). Another case had mycosis fungoides and eventual development of systemic scleroderma (2). Here, we report a case which initially present limited systemic sclerosis overlapping polymyositis and then diagnosed mycosis fungoides after two years.

Key words: Systemic sclerosis, Mycosis fungoides, Sézary syndrome, Cutaneous T-Cell Lymphoma

Case report

Presentation of Case

The 63-year-old woman with limited systemic sclerosis with lung involvement overlapping polymyositis diagnosis for 2 years. She present with edema over feet, hand and lower leg since 2015/1. She cannot stood up or sit up from bed recently, with significant dyspnea on exertion. She reported she had hand easy pale and cyanosis in winter for several years. Physical exam reveal proximal scleroderma which was compatible to 2013 ACR/EULAR Criteria. Other presentation: forearm thickening, sclerodactyly and telangiectasia on fingertip, forearm and upper chest. Although no definite interstitial change on HRCT, CXR reveal reticular nodular pattern and PFTs showed Mild restrictive ventilator defect. Pulmonary hypertension (PA: (s/d/m) 64/44/53 mmHg) was diagnosed on cardiac catheterization. Polymyositis was diagnosed because of Symmetric proximal muscle weakness, Elevated serum muscle enzymes(CK: 427 U/L) and myopathy changes on electromyography.

Other medical history that was notable for hypothyroidism and type 2 diabetes mellitus for which she was receiving various medications, including Revatio, Lasix, Imuran, Eltroxin and Metformin. She lived at home and no recent travel history.

She suffered from cough and rhinorrhea 2 weeks ago without fever, and she took common cold medicines from clinic (ciprofloxacin: 2/17-19 and Ampicillin: 2/20~22). Skin rash started from face, and then progressive generalized itchy reddish

maculopapular eruption were found on trunk and four extremities at night of 2017/02/27 **(figure 1)**. Fever was also noted on next day. At ER on 2017/02/28, on examination, the temperature was 38.3°C and the blood pressure 144/89 mm Hg. Skin exam reveal generalized erythematous maculopapules, with some papules coalescence to plaques, over face, trunk and four extremities, upper extremities are more severe than lower extremities. No obvious pustules were noted. Lab data reveal no leukocytosis (WBC:7600/μL) and eosinophil: 0.8%. No other infectious focus. Because of recent antibiotics expose and skin lesion, drug eruption was diagnosed. Steroid as Methylprednisolone 20mg Q12H and anti-histamine as Fexofenadine and Hydroxyzine were used. Although skin rash didn't totally regress, patient decided to discharge and refuse skin biopsy.

Follow-up Dermatology OPD, the skin rash became generalized erythematous scaling lesions (figure 2). No more fever was noted but the skin lesion persisted.

Differential Diagnosis

1. Drug-induced exanthems

The diagnosis of drug-induced exanthems is suspected in a patient receiving drug treatment who presents with a recent onset rash. The clinical suspicion could be substantiated by history, clinical features, laboratory testing, and sometimes by histopathologic examination of a skin biopsy. The eruption typically clears rapidly (usually within 7 to 14 days) after the suspected drug is discontinued.

Base on clinical history, the diagnosis was preferred initially. Although the patient skin lesion improved after hold antibiotics and use steroid plus antihistamine, her skin lesion still didn't totally regress. The patient may had drug-induced exanthems but couldn't explain why her skin lesion didn't improve during OPD follow-up.

2. Viral exanthem

Lots of virus induce exanthema include Measles, Rubella, Erythema Infectiosum and Parvovirus B19 Infection, Epstein–Barr Virus, Gianotti–Crosti Syndrome, Human Cytomegalovirus, Human Herpesvirus 6, Human Herpesvirus 7, Enteroviruses, Eruptive Pseudoangiomatosis, Boston Exanthem Disease, Rotavirus. The laboratory diagnosis of viral exanthem is based on virus detection or positive serologic findings.

This patient denied cluster history and her family didn't had common cold or skin lesion recently. Although we didn't had virus detection or positive serologic findings, the clinical condition was not compatible for this diagnosis.

3. Allergic Contact Dermatitis

Allergic contact dermatitis (ACD) is a T-cell-mediated, delayed-type hypersensitivity

response to exogenous agents. Contact allergens may be found at home or in the workplace and may include metals, glues, plastics, rubber, fragrances, topical antibiotics, preservatives, and chemicals used in hair care and cosmetic products.

The patient denied history of contact dermatitis. Besides, she didn't expose to stimulus recently.

4. Cutaneous T -cell lymphoma

Most patients present with skin changes that are often pruritic and may have been preceded by a "premycotic" period ranging from months to decades. The cutaneous manifestations are heterogeneous and include patches, plaques, tumors, generalized erythroderma, poikiloderma, or rarely, papules. Extracutaneous manifestations, while uncommon, include involvement of regional lymph nodes, lungs, spleen, liver, gastrointestinal tract, and bone marrow.

This patient had the possibility of the diagnosis. However, pathology confirm was need.

Pathological Discussion

A skin biopsy of the lesion on the abdomen skin was performed because of poor healing. Pathology of abdominal skin reveals psoriasiform dermatitis with epidermotropism of atypical lymphocytes **(Figure 3)**. T cell gene rearrangement γ chain result was Monoclonal. Because there was no Sézary cell at Peripheral blood, adult T cell leukemia lymphoma and erythrodermic mycosis fungoides should be consider. Further study as lymphoma computed tomography reveal multiple lymph nodes over bilateral axillary, mediastinal, para-aortic and bilateral inguinal. Positron Emission Tomography also confirmed the diagnosis. Phototherapy and systemic chemotherapy was suggested. There was no anti-HTLV-1 antibodies at peripheral blood and adult T cell leukemia-lymphoma was less likely.

Discussion of Management

The NCCN guideline suggests consider skin-direct therapy if no blood involvement in stage III patient. Generalized skin involvement could be treating with topical corticosteroid, topical chemotherapy, phototherapy and total skin electron beam therapy.

The patient was admitted again on 2017/07/27 because of fever and diarrhea. After treatment, her clinical condition improved much. Her skin became worse and then generalized erythematous scaling lesions with multiple cracked skin lesions. Because the patient was too weak to stand, phototherapy was postponed. Topical steroid and low dose Methotrexate 7.5mg QW started to treat. However, sepsis shock occurred after one week and blood culture reveal staphylococcus aureus. In the end, the

patient expired because of severe infection caused by wound infection staphylococcus aureus bacteremia.

The patient's final diagnosis was Systemic sclerosis with lung involvement overlapping polymyositis and mycosis fungoides.

Disscusion

Although systemic sclerosis and cutaneous T-cell lymphoma are both rare disease, systemic sclerosis been known to be associated with a higher incidence of Non-Hodgkin Lymphoma (3). Paraneoplastic syndrome may be the one possibility explanation. Systemic sclerosis may have an elevated risk of cancer. It could induce tissue damage as ILD, GERD or PBC. Cytotoxic drugs were used to treat the disease and had elevated risk of cancer. Besides, systemic sclerosis may be paraneoplastic syndrome. Systemic sclerosis with anti-RNA polymerase III positive had more risk of cancer (4,5). Some theory proposes that malignancy may initiate the scleroderma-specific immune response and drive disease in a subset of scleroderma patients (6).

Because lymphoma has such complicated presentation, earlier diagnosis was needed. Physicals should consider any lymphoma on patient with systemic sclerosis.

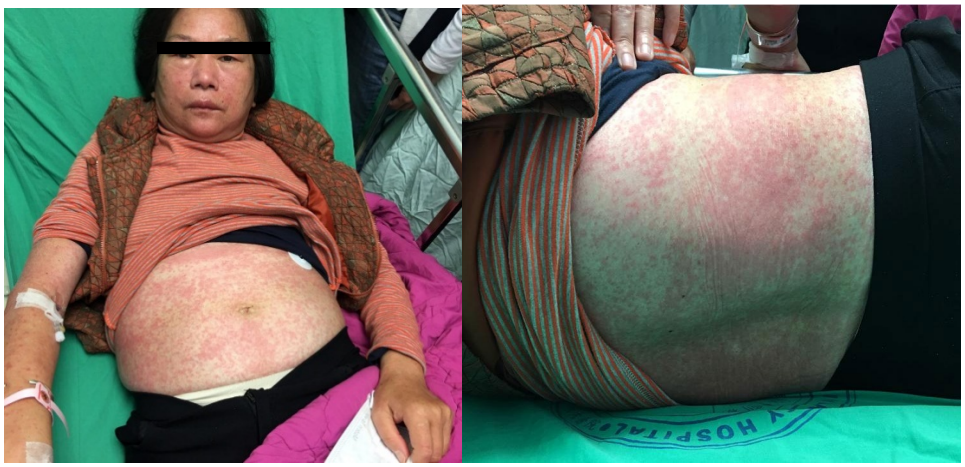

Figure 1.
Generalized itchy reddish maculopapular eruption over trunk and four extremities on 2017/02/27 at initial presentation.

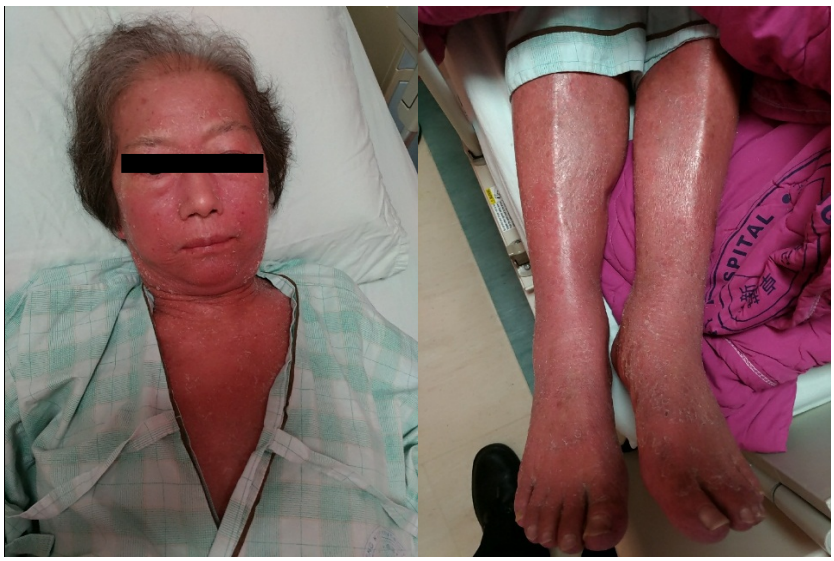

Figure 2.
Generalized erythematous scaling lesions during follow-up.

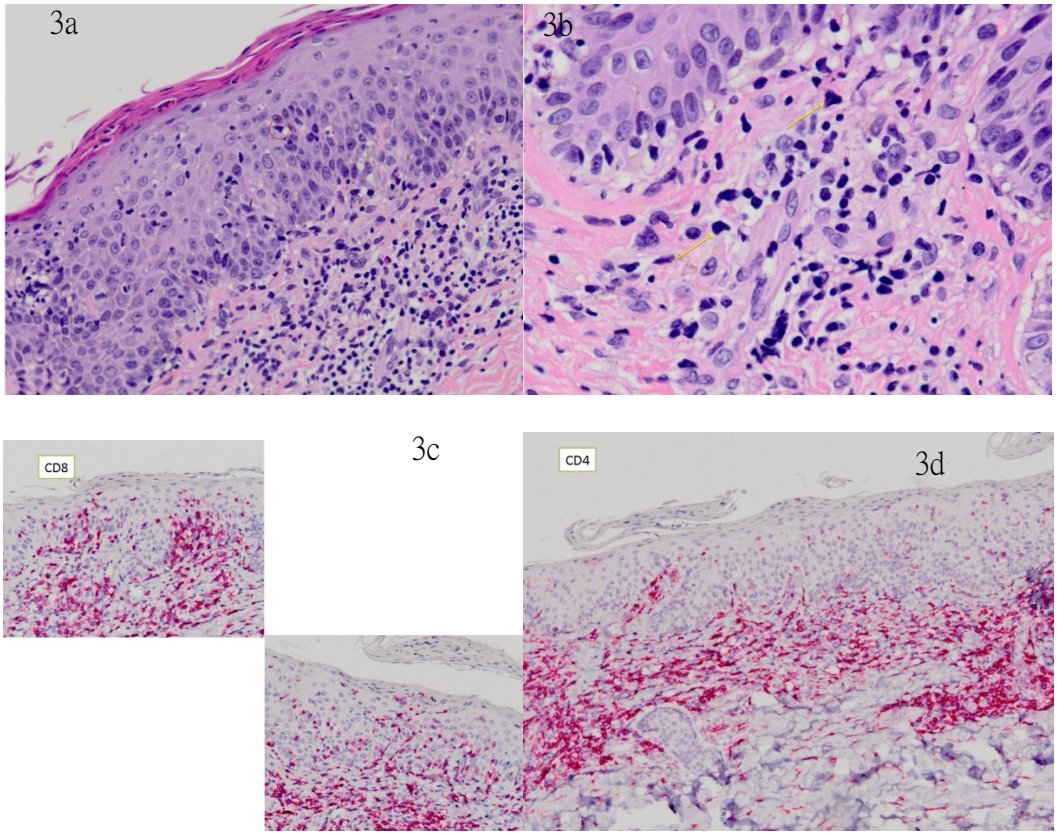

Figure 3.

3a,3b Epidermis shows slight psoriasiform hyperplasia with confluent parakeratosis and infiltration of many lymphocytes primarily in the lower dermis, including some large atypical lymphocytes with hyperchromatic convoluted nuclei. The papillary dermis shows slight fibrosis with a perivascular and patchy lichenoid infiltrate of

lymphocytes, many of them have enlarged, irregular hyperchromatic nuclei.

3c,3d Immunostaining reveals mixed expression of CD4 and CD8 lymphocytes in epidermis and dermis, but some large lymphocytes appears to be CD8(+). CD30(-), scattered CD25(+) cells are present in the epidermis and dermis, some of them appears to be large lymphocytes.

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