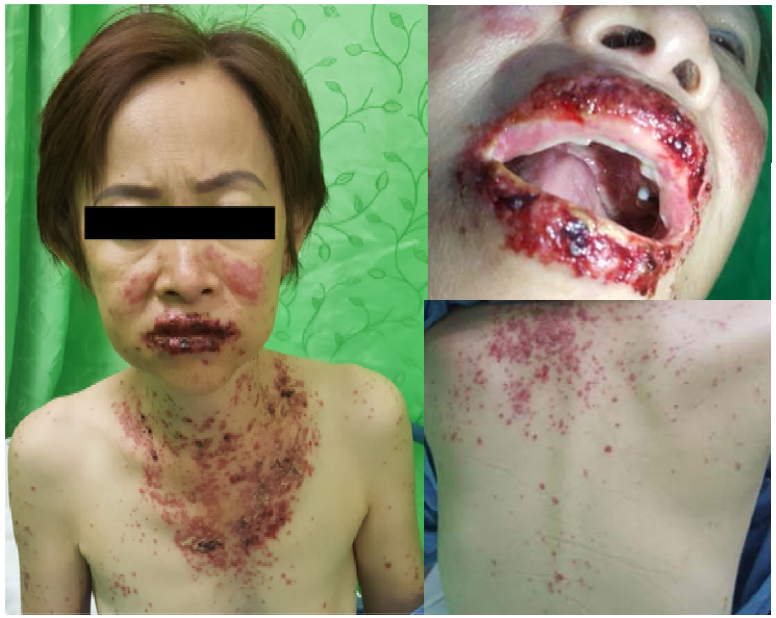
Case 1.1

A 56 year-old Thai woman from Nonthaburi

Chief complaint: painful blisters on photo distributed areas for 2 weeks



(Fig 1.1.1)

Present illness:

19 days PTA the patient went on vacation (Italy) and developed sore throat in which she took oral ampicillin for 5 days.

14 days PTA she developed erythematous rash on her neck which gradually progressed to the face and back.

9 days PTA the lesion progressed to involved the oral and genital mucosa. She was admitted to the private hospital and got systemic corticosteroid with minimal improvement. She had history of recurrent oral ulcer. She denied history of arthralgia, hair loss, fever and also herbal medicine or unprescribed drugs used.

Past history: She was taken ampicillin numerous times without problems.

Underlying disease: Simple goiter, no medication

Family history: No family history of autoimmune disease

Dermatological examination: (Fig 1.1.1)

- Bilateral erythematous edematous patches on both malar areas
- Multiple erythematous to dusky red macules, papules admixed with pustules and vesicles with some hemorrhagic crusted erosion on lips, V-shaped area of neck upper back and lower back, body surface area 4%
- Multiple painless oral ulcers
- Erosive erythematous patches on labia majora

Physical examination: Other systemic examination revealed no abnormality.

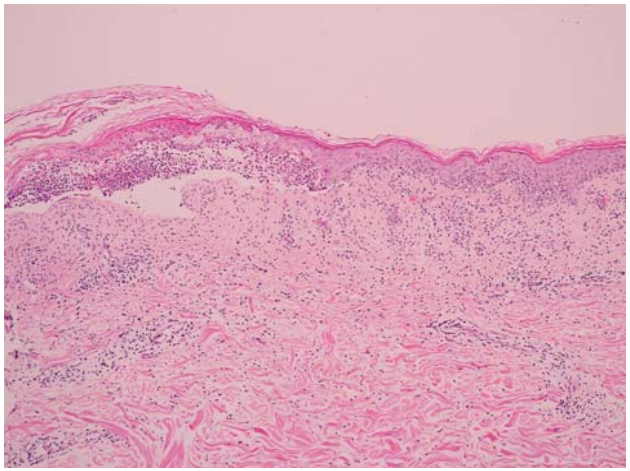
Laboratory investigations:

- CBC: Hb 10.3 g/dL, Hct 30.7%, MCV 89.7, WBC 3,400 cells/µL (N 64%, L 26%, Mono 10%, Eo 0%), Platelets 309,000 cells/µL

- BUN/Cr: 15/0.54 mg/dL
- LFT: AST 19 U/L, ALT 7 U/L, ALP 43 U/L, GGT 14 U/L, TP 64 g/L, Alb 27.4 g/L, TB 0.6 mg/dL, DB 0.3 mg/dL
- ESR: 71 mm/hr, CRP 39.64 mg/L
- UA: Protein 4+, RBC 0-1, no dysmorphic RBC
- UPCR: 0.7
- ANA: Positive coarse speckled titer≥ 1:1280
- Anti-dsDNA: Positive (362.8 IU/ml)
- Anti-smith: Positive 2+
- Anti-SS-A(Ro60KDa): Positive 2+
- Anti-SS-A(Ro52KDa): Positive 2+
- C3c: 0.61 (0.9-1.8 g/L), C4 0.19 (0.1-0.4 g/L)
- Tzanck smear on oral ulcer: Negative
- PCR for HSV type 1 and 2 on oral ulcer: Negative

Histopathology: (S16-027384A, Right side of neck) (Fig. 1.1.2)
- Subepidermal blister with vacuolar alteration and necrosis of basal cell layer
- Scattered necrotic keratinocytes and focal area of sheath of epidermal necrosis
- Dense superficial perivascular infiltrate of mainly lymphocytes

Direct immunofluorescense: granular deposition of IgM, and C3 at the dermoepidermal junction


(Fig. 1.1.2)

Diagnosis: Stevens-Johnson syndrome-like lupus erythematosus, 1st diagnosis SLE with renal and hematologic involvement

Treatment:
Supportive treatment
- Sun protection
- Wet dressing (lip, genitalia)

Specific treatment
- Pulse methyl prednisolone 500 mg IV once daily for 3 days then switch to dexamethasone 5 mg IV every 8 hr
- Oral chloroquine 250 mg/day

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Discussion:

Stevens-Johnson syndrome(SJS)/Toxic epidermal necrolysis (TEN)-like LE is a rare form of cutaneous lupus often occur in a photodistribution, though they can become generalized and involve the mucosa. These lesions progress insidiously over several weeks.[1, 2] It is a severe spectrum of LE-associated vesiculobullous disease often triggered by excessive ultraviolet (UV) exposure with an underlying SLE predisposition.[3] Autoreactive cytotoxic T lymphocytes (mixed with histocytes) from dermis and basement membrane dermal and/or autoantibodies deposition causes hydrophic degeneration of the basal cell layer of the epidermis and apoptotic keratinocytes.[4] Type 1 interferons induction of proinflammatory cytokines and chemokines supports cellular immune response as the pathogenesis. There is close association between interferon (IFN)-inducible proteins and the distribution of CXCR3+ lymphocytes. IFN-inducible CXCL10 was shown to express in the exact areas where cytotoxic lymphocytes invade the basal epidermis and causes keratinocyte death and further leads to dermoepidermal separation.[5] An exaggerated event with massive apoptotic injury of the epidermis causes sheet-like epidermal cleavage leading to SJS/TEN-like ACLE. Like classic drug-induced SJS/TEN, SJS and TEN-like LE are parts of a single spectrum of severe epidermolytic reaction. SJS-like LE has epidermal detachment less than 10% of BSA, whereas TEN is characterized by epidermal detachment greater than 30% of BSA.

In our patient, the duration between initial rash and the onset of epidermal detachment was insidious, 5 days. This is significantly longer than the acute progression of conventional drug-induced SJS/TEN (hours to days) [1] Like a report by Boontaveeyuwat E et.al[6], an initial photodistribution (face, V-shape of neck) which gradually spread symmetrically to involve the trunk, and extremities. In contrast to previous reports, our patients had severe mucosal erosions (oral, genital), virtually indistinguishable from classic SJS.

SJS/TEN-like LE is the first clinical presentation at the diagnosis of SLE in our patient. Therefore, attentive speculation to the diagnosis of SJS-like or TEN-like ACLE should arise when inspecting patients with epidermal necrolytic eruption in the absence of obvious medication or infectious etiology, even without prior history of SLE.

Histopathology reveal prototypical findings of CLE consisting of epidermal atrophy, mononuclear cell infiltration in a lichenoid pattern in upper dermis, perivascular and periadnexal inflammation with melanophage, admixed with features of SJS/TEN; junctional vacuolar alteration, full thickness epidermal necrosis and dermoepidermal detachment. Characteristic histology is essential for the diagnosis of SJS/TEN-like LE.[2, 7]

DIF demonstrated granular, continuous deposition of multiple immunoglobulins (Ig) and/or complement (C) e.g. IgG, IgM, and C3 along the basement membrane zone. These findings are often referred to as lupus band test (LBT). The reported sensitivity of DIF in other reports ranges from 58% to 93%, therefore, negative result does not rule out this condition[7-9].

Immunological profiles were strongly positive (high ANA titers, anti-Ro, anti-La, anti-dsDNA, and anti-Sm) in our patient. Moreover, we found laboratory evidence of active disease at the event of SJS/TEN-like LE e.g. high ESR, low complement. Barker MC

et.al reported hematologic and renal involvement to be 36.3% and 27.2%, respectively, in a recent case report and review on SJS/TEN-like LE.[10] Our patient also had hematologic and renal involvement.

The treatment for SJS/TEN-like LE is unclear, given the rarity management are confined to suggestion through case reports. SJS/TEN-like ACLE require hospitalization. High dose systemic corticosteroid with or without pulse therapy, in conjunction with immunosuppressive (azathioprine, cyclophosphamide, etc.) have been reported to be effective.[3]

Our patient received pulse methylprednisolone and then high dose systemic corticosteroid plus chloroquine 250 mg/day. She had gradually improvement within 1 week with post inflammatory hyperpigmentation. She remained clear of disease through a 1-year follow-up period.

References:

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