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Images in Hospital Medicine

Concurrent Acute, Subacute, and Chronic Cutaneous Rashes in a Patient with Systemic Lupus Erythematosus

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Abstract

A 35-year-old woman with systemic lupus erythematosus presented with diffuse rashes. On exam, rashes of three different morphologies were seen throughout her body. A review of the cutaneous manifestations of lupus and the efficacy of belimumab for cutaneous lupus is provided.

A 35-year-old woman with a history of systemic lupus erythematosus (SLE) and obesity presented with a diffuse rash of multiple morphologies involving her face, hairline, torso, and extremities. She had been diagnosed with SLE at age 18, with manifestations including oral ulcers, arthralgia, anti-nuclear antibody (ANA) and Sjogren's-syndrome-related antigen A antibody (SSA) positivity, a photosensitive malar rash, and subacute cutaneous rashes. Prior skin biopsies had been consistent with subacute cutaneous lupus erythematosus. Trials of hydroxychloroquine, mycophenolate, and rituximab had been hampered by retinopathy, gastrointestinal intolerance, and inefficacy, respectively. She was ultimately managed with azathioprine and belimumab, but both drugs had been stopped for recent gastric sleeve surgery; her last infusion of belimumab was eight weeks and her last azathioprine dose one week prior to presentation.

On presentation, rashes of three different morphologies were seen: a malar rash, also known as acute cutaneous lupus erythematosus (ACLE); diffuse painful targetoid lesions on her extremities and torso with the same morphology as her prior biopsy-proven Rowell-type subacute cutaneous lupus erythematosus (SCLE); and a serpentine rash with scale on her hairline, consistent with discoid lupus, a form of chronic cutaneous lupus erythematosus (CCLE) (**Figure 1**).

The histopathology of each type of rash of lupus is distinct. In ACLE, there is interface dermatitis with sparse infiltration of the dermis.[1] In contrast, CCLE in the form of discoid lupus shows epidermal acanthosis, follicular plugging, and hyperkeratosis; a dense inflammatory infiltrate can extend deep into the dermis.[1,2] The histologic features of SCLE lie somewhere between the subtle findings of ACLE and the severe inflammation seen in discoid lupus.[2] CCLE is classically associated with scarring alopecia, but erythematous plaques with overlying scales can be seen before scarring occurs.[2] Other classic features of discoid lupus are atrophic scarring, follicular plugging, dyspigmentation, and a predilection for the head or neck, especially the conchal bowls.[3]

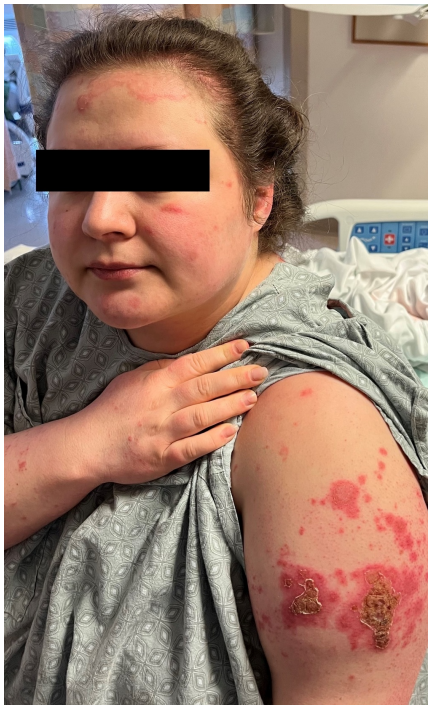

Figure 1. Rashes of three different morphologies (ACLE, SCLE and CCLE) in the same patient

The patient was treated with intravenous methylprednisolone, belimumab, topical triamcinolone for her facial rash, and clobetasol shampoo for her hairline rash. Skin biopsies were deferred, given her known diagnosis of lupus. She experienced improvement in all her rashes and was discharged after seven days of hospitalization with oral prednisone with a taper.

It is rare for patients with lupus to simultaneously demonstrate acute, subacute, and chronic forms of lupus-specific skin disease. In prior databases of patients with cutaneous lupus, 16-18% of patients presented with two different cutaneous subtypes, and no patients had ≥3 subtypes.[4,5] The use of belimumab for SLE has been FDA-approved since 2011; however, its efficacy specifically for cutaneous SLE is less well-studied. Maintenance doses of belimumab were administered every four weeks in the pivotal belimumab trial.[6] In one trial of patients with SLE and low disease activity, withdrawal of belimumab was not associated with increased flares.[7] Clinicians should be aware that patients maintained on belimumab for lupus erythematosus may experience flares if infusion schedules are altered.

AUTHOR CONTRIBUTIONS

All authors have reviewed the final manuscript prior to submission. All the authors have contributed significantly to the manuscript, per the International Committee of Medical Journal Editors criteria of authorship.

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- Drafting the work or revising it critically for important intellectual content; AND
- Final approval of the version to be published; AND
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Disclosures/Conflicts of Interest

The authors report no financial conflicts of interest.

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