




# Lupus Erythematosus Panniculitis: A Rare Case Report

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**Abstract:** An uncommon variation of lupus erythematosus is lupus panniculitis. It can exist on its own or in conjunction with discoid or systemic lupus erythematosus. Persistent, sensitive, and hard nodules that are localized on the face, arms, shoulders, breast, and buttocks are its defining features. Scarring, lipoatrophy, and ulceration are occasionally associated with the healing of lesions. We are reporting the first case of lupus erythematosus panniculitis from Somalia. A 60-year-old male patient visited our polyclinic with an upper back nodule and a left upper ulcerated lesion that had been present for four months.

**Keywords:** lupus erythematosus panniculitis, scar, nodules, fine needle aspiration

## Introduction

An uncommon variation of lupus erythematosus is lupus panniculitis. It can exist on its own or with discoid or systemic lupus erythematosus. Persistent, sensitive, and hard nodules that are localized on the face, arms, shoulders, breast, and buttocks are its distinguishing features.

Lupus erythematosus panniculitis (LEP) is a rare subset of lupus erythematosus. The incidence of LEP in systemic lupus erythematosus (SLE) ranges from 2% to 5%.

Lupus erythematosus panniculitis can occur in both males and females, although it is generally considered to be more common in females. However, due to its rarity overall, there are limited data on the gender distribution and specific factors contributing to the difference in prevalence between males and females.

There is a lobular panniculitis with a dense infiltrate of lymphocytes, plasma cells, and macrophages. Focal hyalinization of the adipocytes is present.

## Case Presentation

A 60-year-old male patient with a left upper ulcerated lesion and an upper back nodule who had been ill for four months came to our polyclinic. He had a history of persistent itching that dated back at least ten years. The patient began to notice two large nodules, one on the left upper chest which was tender and ulcerated and the other on the upper back which was not uncomfortable.

The two lesions started to grow gradually and in 4 months' period become two huge deep-seated nodules. The one on left upper chest become infected, inflamed, swelled and become ulcerated and also had another infected ulcer on upper back. He had no similar family history and no chronic illnesses like diabetes, hypertension and hypercholesterolemia. At the time of left upper chest nodule become infected, he had high grade fever, chills and wound discharge. He has denied any arthralgia, and other systems were unremarkable.

On clinical examination, the patient looks well, alert, and conscious, and all his vital signs were normal range. He had no paleness, no jaundice and no lower limb edema. He has marked deep-seated circle massive nodules on left upper chest

and upper back which are scarred and blackish on skin surface of nodule as well as he has irregular margins on both nodules. He also has left cervical lymph node enlargement, which was non-tender firm and slightly mobile.

An investigation reveals leucopenia  $3.89 \times 1000/\text{mm}^3$  and neutrophils 81.9%. His renal profile was normal in range, but his liver enzymes were mild elevated, and low albumin and his Eliza were normal (HBsAg, Anti HCV and Anti HIV). The C-reactive protein (CRP) test and erythrocyte sedimentation rate (ESR) were 15 mg/dL and 50 mm/hr, respectively. Echo and chest radiography were also normal.

A fine needle aspiration report smears from the lymph node and skin nodules, which comprise individuals and small discohesive clusters of histiocytes and lymphocytes on necrotic fatty background with abundant cellular debris. No granuloma or multinucleated giant cell was seen. Ziehl Nielsen stain did not show acid fast bacilli. No signs of dysplasia or malignancy were seen. On skin nodule, biopsy shows features of chronic panniculitis.

This was the first case of lupus panniculitis report from Somalia. We reached diagnosis by histopathology and biopsy which were revealed lupus panniculitis.

Our patient started anti-malarial therapy chloroquine 250mg twice a day, oral amoxicillin tab  $3 \times 500$  mg and prednisolone 250mg once a daily. After four weeks of treatment, the patient becomes improved and nodules started to recessed and no systemic symptoms.

## Discussion

LEP is a persistent, reoccurring subcutaneous fat inflammation. Kaposi first identified nodules in a patient with systemic lupus symptoms in 1988.<sup>1</sup> An erythematous plaque or nodule that frequently appears on the lateral sides of the proximal extremities, including the arms, shoulders, buttocks, trunk, face, scalp, and breast, is the characteristic appearance.<sup>2,3</sup>

The presence of lobular fat and a localized or diffused lymphocytic infiltrate on the dermis, along with a peri-adnexal disposition, are the histologic characteristics of lupus panniculitis.<sup>4</sup>

We presented the 63-year-old male patient with two sizable disfiguring nodules as the first instance of lupus panniculitis from Somalia. The gold standard for diagnosis is the histological analysis of a lesional skin specimen. There are two distinct subtypes of panniculitis: septal and lobular. Necrosis affects the fat lobules in the latter case as opposed to the intralobular septa of adipose tissue in the former. The majority of patients experience both patterns simultaneously in practice because the inflammatory infiltrate is not firmly segregated. Features of adipose tissue inflammation, such as lymphocyte, histiocyte, and plasma cell infiltration or thickening of the vascular wall, can be seen in the cutaneous specimen of a patient with lupus panniculitis.<sup>5,6</sup>

This LEP is important due to unique presentation of circular necrotic tissue without skin atrophy or nodules could indeed be of significance for several reasons: like Diagnostic Challenges, Treatment Considerations, Research and Literature and Patient Care and Support.

High-density changes represent the lesions. In order to distinguish between them, it is important to take into account different types of panniculitis linked to vascular inflammation, diabetic microangiopathy, venous insufficiency, infectious lesions, some types of lymphomas (especially subcutaneous T-cell lymphomas), or post-traumatic adipose tissue necrosis. Rarely, it may be a symptom of one or more rheumatic diseases, such as polymyositis or scleroderma.<sup>7,8</sup> We diagnosed the LEP by confirming clinicopathologic and biopsy. Most LEP patients have a favorable prognosis. As many as 2% to 40.9% of SLE patients manifested LEP lesions, but LEP is considered to be a marker of a less severe form of SLE. Oral amoxicillin antibiotics, methotrexate, prednisone, and chloroquine were the main treatments we used.

The patient's nodules regressed after receiving extensive treatment, and there were no longer any systemic symptoms or indicators.

## Conclusion

Being a rare disorder, LEP has the potential to go undiagnosed and challenging therapeutic effect due to different variants of this case. Possible only manifestation of LEP is involvement of uncommon bodily site. This case presents challenging atrophic lesions and therapeutic difficulties.

## Ethical Approval

The article provides a case report. Therefore, our Ethical Committee's approval was not required.

## Declaration of Patient Consent

The authors attest that they have all necessary patient permission paperwork on file. The patients have provided their permission in the form for their photos and other clinical data to be published in the publication.

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## Disclosure

The authors report no conflicts of interest in this work.

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