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(CASE REPORT)

A case report on systemic lupus erythematosus

Ramya Balaprabha [1,*], Krishna Sree [1], Harika Guptha [1], Sri Vaishnavi [1] and T. Rama Rao [2]

[1] *Department of Pharm D, CMR College of Pharmacy, Kandlakoya(V), Medchal Road, Hyderabad, Telangana-501401*
[2] *Department of M. Pharm., Ph. D, CMR College of Pharmacy, Kandlakoya(V), Medchal Road, Hyderabad, Telangana-501401*

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Abstract

The abstract encapsulates the complex landscape of systemic lupus erythematosus (SLE), an autoimmune disease impacting multiple organ systems, characterized by immunosuppression and immunomodulation. SLE is recognized as a quintessential connective tissue disorder arising from immune system dysfunction and an overabundance of diverse autoantibodies.

Clinical manifestations of SLE encompass nonspecific constitutional symptoms, including fever, exhaustion, anorexia, weight loss, and arthralgias. Additionally, signs of generalized inflammation like hepatosplenomegaly and lymphadenopathy may manifest at disease onset or during flare-ups. The adaptive immune response in SLE is underpinned by the critical role of B lymphocytes in generating autoantibodies, presenting autoantigens, and activating autoreactive T cells. Treatment strategies for SLE primarily involve biologics and therapeutic options approved by the FDA for refractory cutaneous, articular, and renal disease. Belimumab, infliximab, rituximab, abatacept, and tocilizumab represent some of these approved medications. The management of SLE during remission emphasizes the cautious use of prednisone to mitigate flare-ups, considering potential adverse psychiatric effects associated with steroid medication.[14]

Keywords: Lymphadenopathy; Autoantibodies; Autoantigens; Hepatosplenomegaly; Inflammation

1. Introduction

Systemic lupus erythematosus (SLE), an autoimmune disease affecting nearly all organ systems, includes immunosuppression and immunomodulation [1]. SLE is thought to be the archetypal connective tissue disease, with an immune system malfunction leading to an excess of different autoantibodies as the main etiology [2].

The causes of SLE can be attributed to both environmental and hereditary factors. Infections among them could be crucial in how the disease manifests in a genetically vulnerable person [3,4]. Based on the inverse variance weighted (IVW) technique, the risk of SLE was found to be favorably connected with Bacilli and Lactobacillus's, and negatively correlated with Bacillus's, Citrobacter, and Lachnospira [5].

SLE development of has also been linked to the polymorphism linked to lower basal CRP levels [6]. The development of antinuclear antibodies is a defining feature of the multisystem inflammatory disorder known as systemic lupus erythematosus [7].

Nephrotic syndrome was the most prevalent clinical symptom, while AIHA had the greatest time elapsed before the diagnosis of SLE [8].

* Corresponding author: Ramya Balaprabha

When finally diagnosed with chronic sleroseomyalgia, patients often report nonspecific constitutional symptoms such as fever, exhaustion, anorexia, weight loss, baldness, and arthralgias.

These and other symptoms of widespread Generalised inflammation, such as hepatosplenomegaly and lymphadenopathy, can manifest at the beginning of the illness as well as during flare-ups [9,10].

In the adaptive immune response to systemic lupus erythematosus (SLE), B lymphocytes are essential for the generation of autoantibodies, presentation of autoantigens, and activation of autoreactive T cells [11].

TREATMENT OF SLE mostly discusses the state of biologics and the therapeutic choices for refractory cutaneous, articular, and renal disease; belimumab and off-label infliximab, rituximab, abatacept, and tocilizumab are all FDA-approved [12].

For SLE patients in remission, maintaining 5 mg of prednisone is preferable to stopping it altogether to avoid flare-ups [13].

A dose-dependent, reversible dementia-like illness and a potentially non-dose-dependent stimulation of psychosis are the principal psychiatric adverse effects of steroid medication [14].

2. Case report

A 60 years old female patient came to hospital with chief complaints of Generalised body pain (small joints +large joints) since 3 months, fever (low grade) since 3 months, dysphagia associated with oral ulcer, restricted mouth opening has admitted in the hospital for further evaluation. On examination patient is conscious and coherent, BP:110/80 mmHg, PR-96bpm, CVS-S1S2+,P/A-soft.

- Laboratory findings: mild hypochromic RBC'S, Few macrocytes+
- Total leucocytes count:1.5 x 10^3 (decreased)
- Platelets:146 x 10^3(decreased)
- Coombs test:
    - Direct- positive
    - Indirect-negative
- Genital examination: Rash on face, neck, associated with itching at the discoid region, alopecia
- Tongue: Atrophic glossitis
- Anti-dsDNA : 85 IU/Ml (positive)
- Complete Urine Examination:
    - Globulin 4.19 g/dL(increased)
    - Protein/creatine ratio: 2.1 mg %(increased)

Based on the laboratory findings it was found that there is an increase in the protein count and direct Coombs test positive. Bicytopenia was found. There were rashes on face, neck associated with itching at the discoid region

Based on the subjective and objective data the patient was diagnosed with Systemic lupus erythematosus (SLE).

3. Case discussion

We present a case of 60 year old female patient who had a previous presence of ulcers at the back of rectum since 3 months. Nonspecific fatigue, fever, arthralgia and weight changes are the most common symptoms in new cases or recurrent active SLE flares. However, a butterfly shaped skin rash on the face, fatigue, hair loss and pulmonary, kidney problems are the early signs of lupus.

No single test can confirm that a person has lupus, but a doctor may use several types of blood tests to reach a lupus diagnosis. These include tests to look for antinuclear antibodies (ANA) in the blood. An antinuclear antibody (ANA) blood test measures the presence of antibodies that are directed against the body's cells, a sign of systemic lupus erythematosus. ANA is present in nearly everyone with active lupus. Here the ANTI DS DNA test results were found positive.

Hydrychloroquine: This antiviral drug, which is prescribed, can lessen the severity of lupus symptoms and slow down their progression.

NSAIDs, or nonsteroidal anti-inflammatory drugs: NSAIDs available over the counter (OTC) lessen inflammation and ease pain. Which NSAID kind is best for you and how often to take it will be discussed with your provider. See your physician before using NSAIDs for longer than ten days in a row.

Corticosteroids: Corticosteroids are anti-inflammatory prescription drugs. One typical corticosteroid that doctors use to treat lupus is prednisone. Your doctor may prescribe oral medications or give you a corticosteroid injection into a joint.

Immunosuppressive drugs: Immunosuppressive drugs are drugs that inhibit and suppress your immune system.

In our case, the patient has severe fatigue, weight loss, red rashes and scaly- rashes in the rectum region.

For this patient, hydroxychloroquine is advised as fast symptom alleviation can be achieved and glucocorticoids such as prednisolone, the medium- to long-term goal should be to reduce the daily dose to ≤7.5 mg/day prednisone equivalent or to stop using them altogether.

4. Conclusion

Systemic Lupus Erythematosus (SLE), a chronic autoimmune disease affecting various organs and systems in the body. The patient's clinical manifestations encompassed constitutional symptoms like fever, fatigue, and weight changes, along with joint pain, dysphagia, oral ulceration, and skin manifestations. The multifaceted nature of SLE demands a comprehensive treatment approach. Managing symptoms and preventing disease flares constitute the cornerstone of therapy. Hydroxychloroquine, an antiviral drug, is recommended for immediate symptom relief. Additionally, corticosteroids like prednisone aid in reducing inflammation, while immunosuppressive drugs play a role in modulating the hyperactive immune response.

Compliance with ethical standards

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Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

In the current study necessary approvals were taken from the required committees and the studies were performed. No humans were harmed for the present study.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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