



A Comprehensive Case Study on Systematic Lupus Erythematosus.

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Abstract

Systemic Lupus Erythematosus (SLE) is a complex autoimmune disease that can affect multiple organs and systems within the body. This case study explores the clinical presentation, diagnosis, and management of a patient diagnosed with SLE, highlighting the challenges and intricacies associated with this condition. By examining the patient's journey, healthcare professionals can gain insights into the complexities of SLE and enhance their ability to provide comprehensive care. This case study aims to enhance understanding of SLE and contribute to the evolving knowledge in the field.

Keywords: Auto immune disorder, auto antibodies, formidable enigma.

Introduction

Systemic Lupus Erythematosus is a chronic autoimmune disorder characterized by the presence of auto antibodies that can target various tissues and organs, leading to inflammation and damage. It affects millions worldwide, predominantly women of childbearing age. Systemic lupus erythematosus (SLE) stands as a formidable enigma in the realm of autoimmune diseases, presenting a complex and dynamic clinical landscape. This chronic, multisystem disorder challenges healthcare professionals with its diverse manifestations, affecting virtually any organ system. As an intricate interplay of genetic predisposition, environmental triggers, and dysregulated immune responses, SLE not only perplexes clinicians but also significantly impacts the quality of life for those it afflicts. The complex interplay of genetic, immunologic, environmental, and hormonal factors contributes to the pathophysiology of systemic lupus erythematosus. The heterogeneity of the disease and the involvement of multiple organ systems

make SLE a challenging condition to manage. Treatment typically involves a multidisciplinary approach, including medications to suppress the immune system, manage symptoms, and prevent complications. Regular monitoring and follow-up are crucial for individuals with SLE to optimize their long-term outcomes.

Clinical Manifestations

Systemic lupus erythematosus (SLE) exhibits a wide array of clinical manifestations, often affecting multiple organ systems. Common symptoms include fatigue, joint pain, and skin rashes—most notably the characteristic butterfly rash on the face. Joint inflammation, known as arthritis, frequently occurs, leading to stiffness and discomfort. SLE can also involve the kidneys, causing lupus nephritis, a severe complication. Cardiovascular symptoms may manifest as pericarditis or inflammation of the heart lining. Additionally, individuals with SLE may experience photosensitivity, oral ulcers, hair loss, and hematologic abnormalities such as anemia or low platelet count. The heterogeneous nature of SLE underscores the importance of a comprehensive approach to diagnosis and management, tailored to

the specific manifestations observed in each patient.

Case study

Ms. A, a 32-year-old female, presented with a myriad of symptoms, including joint pain, fatigue, skin rashes, and sensitivity to sunlight. Initial examinations revealed a positive antinuclear antibody (ANA) test and elevated levels of anti-double-stranded DNA antibodies, leading to a diagnosis of Systemic Lupus Erythematosus. The patient reported experiencing joint pain, particularly in the small joints of the hands and wrists. She described significant fatigue, which often limited her daily activities. A facial rash across her cheeks and nose, exacerbated by sunlight exposure, was noted during the physical examination. Additionally, the patient reported occasional oral ulcers and noticeable hair loss.

Examination Findings

Patient laboratory tests reveals that positive anti – nuclear antibodies and anti – smith antibodies and elevated anti double stranded DNA antibodies and low complement levels (C3 and C4). Joint x ray revealed no structural damage and renal ultra sound show no abnormalities. Skin biopsy demonstrated findings consistent lupus erythematosus.

Management

Medications include Nonsteroidal anti-inflammatory drugs (nsaids) for joint pain, Hydroxychloroquine to manage skin rash and prevent disease flares. Corticosteroids for severe symptoms and organ involvement. Methotrexate (DMARDS) was initiated to control disease activity. The patient was closely monitored with regular follow-ups. Adjustments to medication dosages were made based on disease activity and side effects. The patient demonstrated improvement in joint pain, fatigue, and skin manifestations with the prescribed treatment plan.

Discussion

The case study highlights the diverse symptoms of Systemic Lupus Erythematosus (SLE) and the challenges in diagnosis. Ms. A's positive ANA test,

elevated anti-DNA antibodies, and clinical symptoms led to an accurate diagnosis. The multifaceted nature of SLE underscores the importance of a comprehensive approach to address various organ system involvements. Effective management involved a tailored medication plan, including nsaids, Hydroxychloroquine, corticosteroids, and Methotrexate. Regular monitoring and adjustments based on disease activity were crucial. The positive response to treatment emphasizes the significance of personalized care in improving symptoms and overall well-being.

Conclusion:

This case study illustrates the complexity of diagnosing and managing Systemic Lupus Erythematosus. The integration of clinical presentation, laboratory tests, and imaging studies is crucial for an accurate diagnosis. A multidisciplinary approach involving rheumatologists, dermatologists, and other specialists is essential for comprehensive care. Continued research and understanding of SLE will contribute to improved treatment strategies and outcomes for patients with this challenging autoimmune disorder.

References

1. Aringer, M., Costenbader, K., Daikh, D., et al. (2019). 2019 European League Against Rheumatism/American College of Rheumatology Classification Criteria for Systemic Lupus Erythematosus. *Arthritis & Rheumatology*, 71(9), 1400–1412.
2. Gladman, D. D., Ibanez, D., & Urowitz, M. B. (2002). Systemic lupus erythematosus disease activity index 2000. *The Journal of Rheumatology*, 29(2), 288–291.
3. Petri, M., Orbai, A.-M., Alarcón, G. S., et al. (2012). Derivation and Validation of the Systemic Lupus International Collaborating Clinics Classification Criteria for Systemic Lupus Erythematosus. *Arthritis & Rheumatism*, 64(8), 2677–2686.