A CASE REPORT ON SYSTEMIC LUPUS ERYTHEMATOSUS- AN AUTOIMMUNE DISEASE

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ABSTRACT: Introduction: Systemic Lupus Erythematosus (SLE) is an autoimmune, multifaceted and a chronic inflammatory condition that may affect any part of the body with unknown etiology and a variety of manifestations and presenting features. The pathology of SLE is related to the deposition of immune complexes in various organs which trigger complement and other mediators of inflammation. **Case presentation:** In the present case, the patient was admitted with the chief complaints of fever with chills and rigors, swelling and rashes over the hands, face and legs, generalized weakness and pain and swelling of knee joints. The patient was diagnosed with relapse of SLE and the patient was given symptomatic treatment as well as treated SLE and discharged after recovery. **Conclusion:** Diagnosis can be difficult because SLE mimics many other diseases; also it requires clinical and serologic criteria. So diagnosis should be made appropriately and treated symptomatically as SLE can present major challenges because of accrued damage and coagulation defects.

Keywords: Systemic Lupus Erythematosus, inflammation, autoimmune.

INTRODUCTION

SLE is a multi-faceted, chronic autoimmune inflammatory disease that can affect persons of all ages both genders ethnic groups but more than 90% of patients with SLE are women of child bearing age. SLE affects multiple systems with the generation of numerous auto-antibodies, specifically anti-nuclear antibodies (ANA) [1]. As SLE is the most diverse of all autoimmune diseases, it may affect any organ of the body and display a broad spectrum of immunological and clinical manifestations [2]. The specific incidence of the disease by age and gender was usually highest at 15 to 44 years of age whereas the prevalence was maximal at 45 to 64 years of age [3].Over 90% of patients with SLE have positive ANA. SLE is a remarkable and challenging disorder. Cutaneous manifestations of SLE are present in 85% of patient during the course of the disease. Variety of skin features can be proved in lupus patient, including lupus erythematosus panniculitis (LEP)[4].In susceptible individual, disease may result from a variety of environmental triggers such as exposure to sunlight, infections and drugs, Epstein barr virus. Clinical manifestations of SLE are diverse which include constitutional symptoms such as fatigue, weight loss, fever, unsatisfying sleep, renal disease, neuro psychiatric lupus including headache and seizures, depression and psychosis, musculoskeletal disease, skin involvement, pruritis, hematological abnormalities, and also gastrointestinal involvement is also observed [5]. Management principles of SLE include :1) Reducing the co-morbidities secondary to lupus and its treatment, 2) Preventing organ damage from active lupus,3) maintain lowest degree of activity using immunosuppressants, immunomodulators as appropriate and avoiding known triggers,4) Address pain and fatigue which are always not associated with active lupus. Early initiation of treatment can favorably regulate the immune system. Treatment includes immunomodulators, hydroxy chloroquine, vitamin-D, dehydroepiandrosterone, corticosteroids, cytotoxic immunosuppressantssuch as cyclophosphamide, azathioprine, methotrexate, mycophenolate, calcineurin inhibitors and life style modifications [6].

CASE REPORT:

A 29 years old female patient was admitted to the hospital with complaints of fever with chills and rigors since 5 days, swelling and rashes over the hands and legs, generalized weakness and swelling of joints.

Vitals of the patient include: temperature 100^{o} F, blood pressure 110/70mmHg and rashes over the skin were observed. Laboratory investigations of the patient include: Hb:9.0gm%, RBC: 3.5m/cmm and they were in the form of hypochromic and anisocytosis, WBC: 4000. Microscopic examination of the urine demonstrated 2-4 epithelial cells, 4-6 pus cells and 8-10 RBCs. Progen test was found to be positive indicating typhus fever. A 24 hours urine P/C ratio was performed in which 24 hours urine protein was found to be2,278 mg/day and 24 hours urine volume was 2000ml/24hours. On day 1, symptomatic treatment was given to the patient. On day 2, swelling of face eyelids and pain of both lower limbs was observed. The patient was the known case of SLEsince 2 years. The patient was treated with Doxycycline, injection pheniramine maleate and hydrocortisone 100mg. On day 5 both eye lids were swollen and ANA was positive. Tablet prednisolone 10mg twice daily, tablet hydroxychloroquine 200mg was administered. The patient was planned for discharge and discharge medication include tablet prednisolone 10mg twice daily, tablet telmisartan 20mg once daily, tabletAzithromycin 500mg twice daily and tablet hydroxychloroquine 200mg twice daily. The patient was advised to review after 10 days.

DISCUSSION:

SLEis an autoimmune disease characterized by the unusual production of antibodies in blood which is more common in women than men[7]. SLE results from a disordered immune reaction in which antibodies are produced against own proteins and lupus is characterized by ANA leading to inflammation. The most frequent manifestations of SLE include arthritis, skin lesions, blood involvement, renal involvement, CNS involvement and GI symptoms [8]. In present case the progen test was found to be positive which confirmed the presence of typhus fever, 24hrs urine P/C ratio demonstrated protein loss which is an indication for renal damage. Hematology demonstrated anisocytic and hypochromic RBC. On examination, swelling of face, eye lids, lips and lower limb pains and swelling of knee joints was observed and ANA was found to be positive and the patient is a known case of SLE which confirmed the presence of SLE. All the diagnostic parameters and general examination demonstrated the involvement of multiple systems such as hematological, renal and skin involvement [1]. The patient was treated symptomatically and disease specific treatment was also given.

CONCLUSION:

SLE is an incurable chronic auto immune disorder especially women in reproductive age suffer from this disease. It is important and necessary to regularly document the clinical symptoms in relation to the laboratory parameters. The long-term prognosis for SLE has improved and earlier diagnosis and optimized treatment has to be given to prevent further complications.

ABBREVATIONS:

SLE – Systemic lupus erythematosus

ANA - Anti-Nuclear Antibodies

LEP- Lupus Erythematosus Panniculitis

CNS – Central Nervous System

GI –Gastro Intestinal

CONFLICT OF INTEREST:

Declared none.

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