



## A Case of Systemic Lupus Erythematosus Presenting as Lupus Nephritis

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### Abstract

*Systemic Lupus Erythematosus (SLE), is a multisystemic disease with an unknown etiology. It is especially frequent in females. SLE has a vasculitic feature and may affect many systems of the body<sup>1</sup>. SLE is a chronic inflammatory disease that affects the kidneys in about 50% of patients. Lupus nephritis is a major risk factor for overall morbidity and mortality in SLE<sup>2</sup>. We present a case of 35 year old female admitted with chief complaint of fever, swelling of both feet and decreased urine output.*

### Introduction

Systemic lupus erythematosus (SLE), is an inflammatory connective tissue disorder that occurs Commonly in females<sup>1</sup>. The four main types of lupus are neonatal and pediatric lupus erythematosus (NLE); discoid lupus erythematosus (DLE); drug induced lupus (DIL); and systemic lupus erythematosus (SLE).<sup>3</sup> The pathogenesis of SLE consists of antibodies (anti-nuclear antibody, antids DNA, anti-histone antibody) and immune complexes, resulting in damage to many tissues and organs.<sup>1</sup> General signs and symptoms observed in SLE include fever, fatigue, and weight loss. The skin, musculoskeletal system, and pulmonary system are primarily affected.<sup>3</sup> American College of Rheumatology's (ACR) criteria are used to draw the diagnose for SLE. At least 4 criteria of 11 must be present for diagnosis<sup>1</sup>.

### Case Report

A 35 year old female admitted with chief complaint of fever for 5days 25 days back, Swelling of both feet for 21 days and decrease urine output for 7 days. Feverish feeling associated with chills and rigors, intermittent, relieved by medications, Undocumented, daily. No history of nasal discharge, ear discharge, headache, cough, nausea, vomiting, loose motions, rashes, joint swelling, abdominal distention, burning micturition. Swelling both feet for 21 days which was Insidious in onset, gradually progressive associated with periorbital puffiness at morning time and not associated with shortness of breath or discomfort on lying down. Decreased urine output for 7 days which was Insidious in onset, progressive in nature. Not associated with cola / frothy / cloudy urine but associated with decreased appetite, nausea. Her

past history, medical history and family history was not significant. On general examination patient was conscious, cooperative, oriented to time, place, person, Malar rash present. Patient was short stature (familial), pallor and pedal edema was present and J V P was raised. There was no Icterus, cyanosis and lymphadenopathy. Her vitals were pulse of 86/min, B P 140/80 mmHg, RR 16/min, SPO2 94% and Temperature 98.4°F. Examination of other system was not significant. Provisional diagnosis of acute nephritic/nephrotic syndrome and etiology of SLE and PSGN were made. Hematological investigation show Hb 9.8 gm/dl, TLC 10000/microl, Neutrophils 80%, lymphocytes 15%, Platelet: 4,80,000, ESR 80 mm1stHr, P/S show normocytic, normochromic and RBS of 78 mg/dl. RFT show Urea 60 mg/dl and Creat 4.1 mg/dl. ABG show metabolic acidosis with respiratory compensation. Urine analysis show WBCs: 8-10 PHF, RBCs: 8-10 PHF, Protein: 3+ and Glucose was absent. 24 hrs Protein was 2.5gm. CXR and ECG was normal. USG (KUB) revealed RT Kidney 9.58 \* 4 CM, LT kidney 10\* 4.5 CM and B/I MRD. Immunological investigation show ANA Positive 1:640, DS DNA Positive, C3 level was 36 (normal 81-120), DCT Positive and ASO was Negative. Final diagnosis of SLE presented as lupus nephritis were made. Treatment was given with IV methylprednisolone 0.25g/day for first 3 days followed by oral prednisone 1 mg/kg/day. The patient's complaints relieved with prednisolon treatment.

### Discussion

SLE is a multisystemic disease which effect many organs. Auto antibodies are responsible for the multisystemic involvement.<sup>1</sup>LN is a major risk factor for morbidity and mortality in SLE and 10% of patients with LN will develop ESRD. The clinical manifestations of LN are often subtle and most commonly will be discovered by examination of the urine as opposed to physical

examination. All patients with SLE should be evaluated for kidney involvement at initial diagnosis and at least yearly thereafter even if they do not have symptoms of kidney disease.

Evaluation include a urinalysis and measurement of kidney function, generally a serum creatinine concentration or eGFR<sup>2</sup>. Lupus nephritis is an important prognostic indicator and it can lead to nephrotic syndrome and renal failure in developed patients by autoantibodies. Lupus nephritis develops in 50% of systemic lupus patients. Nephritis is divided into 5 pathologic classification groups by World Health Organisation (Table1) One of the laboratory findings of lupus nephritis is proteinuria.<sup>1</sup> Treatment include IV methylprednisolone 0.25g/day for first 3 days followed by oral prednisone 1 mg/kg/day.

### References

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