

SLE In Males: A Case Series Study of a Rare Entity.

G B Pavani*, Y Swetha, A Vijaya Mohan Rao, Vishnupriya

Department of Dermatology Venerology Leprosy, Narayana Medical College Hospital, Nellore, Andhra Pradesh, India.

Corresponding Author: Dr. G. B. Pavani, MD,DVL

41/ 1473 -1, Shankarapuram Kadapa, Andhra Pradesh. INDIA .516002

Abstract: Systemic Lupus erythematosus (SLE) is a chronic autoimmune disorder of unknown etiology with multi system involvement. The disease is commonly seen in females of reproductive age with exceptionally rare involvement in males. The exact reason for this gender difference is not known but it has been observed to show major systemic involvement with poor prognosis. Here we report three cases of SLE in men with major cutaneous manifestations with renal involvement and florid systemic manifestations. All the three men were young and below 25 years of age. Since no major renal symptoms were presented, the disease had been overlooked and already progressed with major renal affections.

Key words: SLE, Autoimmune disorder, Male patients, Lupus nephritis

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I. Introduction

Systemic lupus erythematosus (SLE) is a rare autoimmune disorder with 8% prevalence, amongst which 78% are females. Though the exact cause is still unknown but several hypotheses such as estrogen hormone involvement has been proposed. A male involvement is quite rare. It has been observed that males have a more complex clinical disease course with higher mortality and morbidity than females. In the below reported case series, we observed that renal involvement was more common apart from skin manifestations followed by joint affections and psychiatric affections. The disease presentation was severe with grade IV renal involvement.

Case 1

A 17-year-old male patient presented with complaints of fever, joint pains, painful oral lesions, elevated dark colored cutaneous lesions over face, trunk and extremities for 6 months. Photosensitivity was present. History of episodes of pain abdomen and blood in stools was present. Mucocutaneous examination revealed erythematous to hyperpigmented papules, plaques of varying sizes distributed over nose, cheeks, forehead, lumbosacral area, upper and lower limbs including palms and soles. Few well defined ulcers of size 3 x 1 cms with base covered with yellowish crust were seen over the gluteal area. Oral cavity showed erosions over the soft palate and buccal mucosa. Diffuse non-scarring alopecia present. Moderate ascites was present.(Figure 1).

On investigation, there was anemia, albuminuria (++) with elevated serum creatinine level. Spot protein creatinine ratio was 3.61. The ANA level was 3.31 and dsDNA was 3+, anti-smith 2+, anti-nucleosome antibody 3+. Skin biopsy was suggestive of lupus erythematosus. Renal biopsy showed WHO stage IV lupus nephritis with high activity. Patient fulfilled SLICC criteria .The score is 9. (6 clinical criteria and 3 immunological criteria). He was started on NIH protocol.(National Institute of Health). Inj Methyl prednisolone 750 mg two doses on alternate days .Inj Cyclophosphamide 1gram slow iv infusion over 4 hours once in a month for a total of 6 cycles .Oral tab prednisolone 30 mg and tab HCQ200mg once a day . After transfusing albumin his ascites improved. Cutaneous and oral lesions showed gradual improvement. He is on regular follow up with nephrologist and at the department of DVL.

Case 2

A 25-year-old male patient presented with complaints of joint pains, painful oral lesions, elevated itchy skin colored lesions and episodes of chest pain and breathlessness for 6 months. History of photosensitivity present. Episodes of depression with suicidal tendency was noted. Mucocutaneous examination showed erythematous papules, plaques, few vesicles and tense bullae over the nose, cheeks, forehead, lumbosacral area, upper and lower limbs. Erosions were present on the lips and buccal mucosa. Lupus hair with diffuse non-scarring alopecia present. Looks often dull and apathetic. Psychiatrist intervention was taken and started on SERM(Figure 2).

On investigation, there was anemia, albuminuria (++) and right-sided exudative pleural effusion with normal serum urea and creatinine. The ANA level was 5.10 and dsDNA was 3+, anti-smith 2+, anti RNP 2+. Skin biopsy was suggestive of bullous systemic lupus erythematosus. Patient fulfilled SLICC criteria for the diagnosis of SLE (table 1). The score is 8 (5 clinical criteria and 3 immunological criteria). He was diagnosed of bullous SLE with psychiatric manifestations. He was started on pulse steroid therapy (inj Methyl prednisolone 500mg two doses on alternate days), oral HCQS 200mg twice a day, tab Escitalopram 10mg (SERM, as advised by psychiatrist) following which cutaneous and oral lesions started healing. His general condition and psychiatric symptoms showed significant improvement. He was continued with HCQS and SERM drugs with regular follow up with psychiatrist and to the department of DVL.

Case 3

A 16-year-old male patient presented with complaints of hematuria, facial puffiness and severe headache. This was his third episode with same complaints in a period of 9 months duration. He had asymptomatic dark colored lesions over face, neck and trunk with no history of photosensitivity (Figure 3). He had pallor and hypertension -160/90 mm of Hg.

Mucocutaneous examination showed hyper pigmented macular reticulate pigmentation over cheeks, temples, V area of chest, upper arms and periorbital puffiness was seen. Nails showed clubbing and greenish discoloration of nail plate involving all finger and toe nails. Other systemic examination revealed no detectable abnormality.

Laboratory investigations showed albuminuria 3+, plenty of RBC, anemia with hemoglobin (Hb) 10.2gm%, serum creatinine 1.61. The 24-h urinary protein was 3.7 g, anti-nuclear antibody (ANA) level was 3.80 (normal <1.0 unit/ml), the anti-double stranded DNA antibody (dsDNA) was 165.52 (highly positive 3+ve), anti-smith antibody positive (2+ve) and anti nucleosome antibody was strongly positive (3+ve). Nail clippings for KOH and fungal culture were negative. These findings fulfilled SLICC criteria for the diagnosis of SLE. The score is 6 (3 major clinical criteria, 3 immunological criteria). Renal biopsy showed World Health Organization (WHO) stage IV lupus nephritis with high activity and chronicity indices. The complement C3 level was 42, which is low (normal value 70–120). He was started on oral prednisolone at 1mg/kg/bodyweight and Mycophenolate mofetil 500mg once a day along with ramipril 5mg once a day. He is on regular follow-up at the department of DVL and nephrology, with no further episodes of hematuria. The last tested 24-h urinary protein was 0.34 g; and urine analysis showed no active sediment or casts.

II. Discussion

Systemic lupus erythematosus is a chronic inflammatory autoimmune disorder with variable systemic involvement. Its exact etiology is not known but several factors such as genetics, hormones, and infectious diseases might hamper the immunological capacity of the individual, favoring the development of SLE.

On the basis of gender, females are more prone to be affected by SLE than males. Since females have a higher antibody response as compared to males and sex hormones might play a key role in the pathogenesis of SLE. It has been observed that during pregnancy, post-partum and during menstrual phase there has been an increase in the symptoms of SLE while females on oral contraceptives are at higher risk of developing SLE^{1,2}. These findings do suggest an association of estrogen level with the development or exacerbation of SLE. But men with SLE did not have any increase in the estrogen levels or reduced levels of androgen and were fertile with normal reproductive capacity³. Hence, estrogens alone cannot be blamed responsible for SLE.

But though males have lesser prevalence in development of SLE, their clinical presentation shows higher chances of mortality as compared to females⁴. Men usually present with pleurisy, renal disorders, hemolytic anemia and seizures. Amongst this lupus nephritis is seen in almost 60% of the SLE patients at some point of time during their illness^{5,7}. It is one of the serious presentations with higher chances of mortality and morbidity. The deposits of DNA or anti dsDNA complexes get accumulated in the glomerulus developing lupus nephritis. Proteinuria is the characteristic finding of lupus nephritis with microscopic hematuria, reduced glomerular filtration rate and rarely macroscopic hematuria.⁷ In our above case series, two patients were diagnosed with lupus nephritis. In the two cases, apart from skin affections, patients had urinary complaints with deranged laboratory values confirming the diagnosis. While in the third case, the patient presented with skin and mucous membrane affections along with fever and joint pains and psychiatric symptoms.

Skin involvement is seen in 80% of cases during their entire course of disease. Apart from this arthritis of small joints, anemia, leucopenia, pleuritis, pericarditis are also observed. Though immunosuppressants and supportive care help in minimizing the mortality,^{5,7} but several factors such as uncontrolled hypertension, increased disease activity index, inefficient response to initial treatment and nephritic relapses the probable causes of mortality and treatment failure⁹.

Since majority of clinical studies on SLE had a female dominance⁶ with very few male cases⁷, hence its clinical presentation in males is still not clearly determined. But with few studies like by Prete PE⁶, et al it

has been stated that males have a complex disease course with increased mortality within a year in older men. But contrary to this, in a study by Hochberg⁸, et al. there was no major difference in the systems involved by males and females except for males had more peripheral neuropathy .

In our case series study, skin involvement was seen in all 3 cases, followed by lupus nephritis and arthritis. The manifestations had a complex course with comparatively higher morbidity. Prognosis will be poor with 50% mortality rate in patients with grade 1V lupus nephritis despite treatment.^{9,10} A multidisciplinary approach is definitely needed to manage these patients with a close monitoring.

III. Conclusion

We observed a wide array of symptoms in our patients. All our patients are young males less than 25 years of age. We also observed high morbidity, with florid systemic manifestations in addition to mucocutaneous involvement. Management needs to be a well synchronized team work involving dermatologists, physician, nephrologists, psychiatrist, internists and well-trained nursing staff. From this case series, we can observe that male SLE is not as uncommon as was mentioned in literature. Unless a clinician maintain a strong index of suspicion, the disease is generally missed and patients land up at later stages with unfavorable outcomes.

CONFLICT OF INTREST

None to declare

References

- [1]. Mok CC, Lau CS, Chanz TM, et al. Clinical characteristics and outcome of southern Chinese males with systemic lupus erythematosus. *Lupus*. 1998;8:188–96.
- [2]. Fauci AS, Braunwald E, Kasper DL, et al. Bevera Hannahs Hahn. Systemin Lupus Erythematosus. In: eds. Harrison's Principle of Internal Medicine. New York: McGraw Hill Medical; 2008. p. 2075-82.
- [3]. Stahl NI, Decker JL. Androgenic status of males with systemic lupus erythematosus. *ArthritisRheum*. 1978;21:665–8.
- [4]. Tze Chin Tan, Hong Fang, Laurence S. Magder, and Michelle A. Petri. Differences between Male and Female Systemic Lupus Erythematosus in a Multiethnic Population. *J Rheumatol* . 2012 April ; 39(4): 759–769.
- [5]. Josep Font, Ricard Cervera, Margarita Navarro, Lucio Pallares, Alfons Lopez-Soto, Josep Vivancos, Miguel Ingelmo. Systemic lupus erythematosus in men: clinical and immunological characteristics. *Annals of the Rheumatic Diseases* 1992; 51: 1050-1052
- [6]. Prete PE, Majlessi A, Gilman S, et al. Systemic lúpus erythematosus in men: a restrospective analysis in a Veterans Administrations Healthcare System population. *J Clin Rheum*. 2001;7:142–50.
- [7]. Lupus nephritis: prognostic factors and probability of maintaining life supporting renal function 10 years after the diagnosis. Gruppo Italiano per lo Studio della Nefrite Lupica (GISNEL) *Am J Kidney Dis*. 1992;19:473–479.
- [8]. Hochberg MC, Boyd RE, Ahearn JM, et al. Systemic lúpus erythematosus: a review of clinic laboratory features and immunogenetic markers in 150 patients with emphasis on demographic subsets. *Medicine (Baltimore)* 1985;64:285–95.
- [9]. Lu LJ, Wallace DJ, Ishimori ML, Scofield RH, Weisman MH. Male systemic lupus Erythematosus : A review of sex disparities in this disease . *Lupus* 2010;10:119-29
- [10]. Krishna Kumar Agrawaal, Subodh Sagar Dhakal. Systemic Lupus Erythematosus in Males: A Case Series. *Saudi J Kidney Dis Transpl* 2014;25(3):638-642 © 2014 Saudi Center for Organ Transplantation

Table 1 SLICC CRITERIA (Systemic Lupus International Collaborating Clinics) Criteria for the diagnosis of SLE.

Clinical Criteria.
1. Acute or subacute cutaneous lupus.
2. Chronic cutaneous lupus.
3. Oral /nasal ulcers.
4. Non scarring alopecia.
5. Inflammatory synovitis with physician – observed swelling of two or more joints (or)tender joints with morning stiffness.
6. Serositis
7. Renal : urine protein/creatinine (or 24 hour urine protein) representing at least 500mg of protein/24 hour
(or) red blood cell casts.
8. Neurological : seizures,psychosis,mononeuritis multiplex,myelitis,peripheral or cranial neuropathy,cerebritis (acute confusional state).
9. Hemolytic anemia
10. Leucopenia (<4000/mm ³ at least once)
(Or)
Lymphopenia (< 1000/mm ³ at least once)
11. Thrmboctopenia (< 100000/mm ³) at least once.
Immunological criteria.
1. ANA above laboratory reference range.
2. Anti ds DNA above laboratory reference range.
3. Anti –sm
4. Anti phospholid antibody.

a. Lupus anticoagulant.
b. False positive test for syphilis.
c. Anticardiolipin –at least twice normal or high titre.
d. Anti β 2 glycoprotein 1
5. Low complement –low C3 ,low C4,low CH50.
6. Direct coombs test in absence of hemolytic anemia.
The patient of SLE has to satisfy four of the criteria, including atleast one clinical and one immunological criteria.
Or biopsy proven lupus nephritis with ANA or ds DNA antibodies

CLINICAL PHOTOGRAPHS

Figure 1

- (a) Malar rash (b) oral erosions on palate (c) lupus hair
 (d) well-defined ulcers over gluteal area. (e and f) rash over palms and soles



Figure 2.

- (a) Malar rash (b) hyperpigmented papules and plaques over periorbital area .
 (C, d and e) skin colored papules and few bullae over lower back, upper and lower limbs (f) oral ulcers (g and h) lupus hair



Figure 3 .

(a) Periorbital puffiness (b) clubbing. (b, e) greenish discoloration of nail plates
(C and d) diffuse reticulate hyper pigmentation



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