Scholars Journal of Applied Medical Sciences
Abbreviated Key Title: Sch J App Med Sci
ISSN 2347-954X (Print) | ISSN 2320-6691 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Pediatric

Case of Systemic Lupus Erythematosus

Dr. Shahaza Alalialjawala[1*], Dr. Azza Abd Algader Ali Algak[2], Dr. Muhammed Elhamidi[3], Dr. Suleyman Madad[4]

[1,2,3]Hamad Emergency, Pediatric Department, Hamad Medical Corporation (Pediatric Emergency Center), DOHA, Qatar
[4]Ophthalmology Department, Primary Health Care Corporation, DOHA, Qatar

DOI: 10.36347/sjams.2023.v11i08.014 | **Received:** 28.06.2023 | **Accepted:** 01.08.2023 | **Published:** 17.08.2023

***Corresponding author:** Dr. Shahaza Alalialjawala
Hamad Emergency, Pediatric Department, Hamad Medical Corporation (Pediatric Emergency Center), DOHA, Qatar

Abstract **Case Report**

SLE is multisystemic chronic autoimmune disease, about 20% of cases diagnosed during first 2 decades of life, it is more aggressive in children than in adult and requires aggressive treatment, Systemic lupus erythematosus (SLE) is the most common rheumatic disease associated with significant morbidity and mortality in children. In this article we study case report of 11 years female with newly diagnosed SLE with multiple systemic involvement.

Keywords: SLE, Autoimmune Disease.

INTRODUCTION

Systemic lupus erythematosus (SLE) is a chronic autoimmune inflammatory disease of unknown cause that can affect any organ system, most frequently the skin, joints, kidneys, and the nervous, hematologic, and cardiovascular systems. It is characterized by the production of multiple autoantibodies. Pediatric-onset systemic lupus erythematosus (SLE) is usually more severe than its adult counterpart. In particular, there is a higher incidence of renal and central nervous system involvement. The care of children and adolescents with SLE is different from that of adults because of the impact of the disease and its therapy on physical, psychosocial, and emotional growth and development.

CASE REPORT

A previously healthy 11 years old girl presented to Pediatrics Emergency Center with a 2 weeks history of fever, runny nose, joint pain, skin rash and spitting out blood while coughing. She had two episodes of bilateral epistaxis with moderate amount of blood. No history of easy bruising after falls or trauma, no bleeding from other part of the body. She was partially responding to antipyretics at home for 39-400C temperature. Rashes were present on face, hand & scalp for the last 2 months & became more apparent with recent fever attack. Pain of multiple joints including both knee and small joints of hands and back pain but there is no swelling no hotness or redness of joints also there is thigh and shoulder pain. No history of migratory joint pain- Has same pain and back pain 2 months before presentation more sever in the morning.

At the time of presentation to the Emergency Center, temperature was 390C, GCS 15 with low mood. The weight was 50th percentile & height 85th percentile.

Physical examination shows
No lymphadenopathy

Head:

Erythematous crusted patches on the face asymmetrically distributed over nose and cheeks sparing the nasolabial area, also on the scalp, eye brows. There were two mouth ulcers.

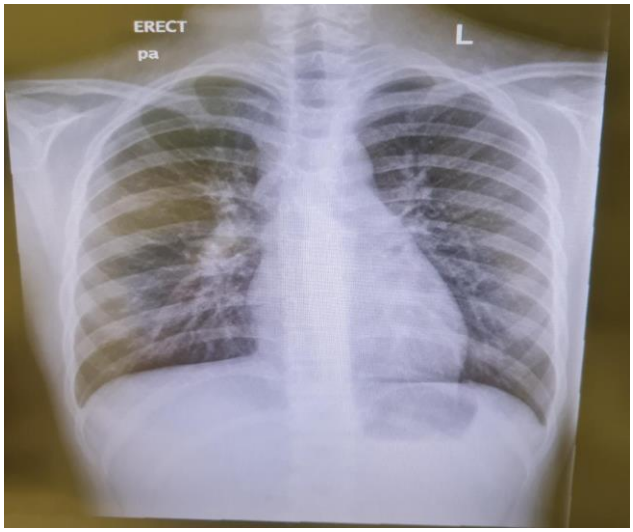
Hand and Fingers have erythematous patches and small papules with nails angular peeling
Has normal gait, arthralgia in both knee but no signs of arthritis

Chest, CVS: normal
Abdomen: No organomegaly or ascites
CNS: No meningeal signs and normal neurological examination

Patient's initial diagnosis was viral illness versus autoimmune disease
Laboratory investigations were as follows

Investigations	**Value**
Blood	
WBC 1st Day	$3.4x10^3$
WBC 2nd Day	$2x10^3$
WBC 3rd day	$1.4x10^3$
ANC	0.8
HB	10.5
Platelets	302
CRP	7.3
ESR	40
RFT	Normal
ALT	124
AST	235
LDH	769
CK	378
Ferritin	1398
COVID 19 IgM	positive
Covid 19 IgG	positive
Hepatitis screening	negative
EBV IgG	positive
ANA	positive
Anti-double stranded DNA	positive
Anti CTD	positive
RO	positive
QuantiFERON	in determine
Urine	
WBC/RBC	High
UR Protein Ratio	56.6
24 hour urine collection	
lupus anticoagulant, ACL's and B2 gylcoprot antibodies	Normal
Respiratory virus nasopharyngeal swap	Negative

Peripheral smear shows moderate normochromic anemia with microcytosis and increased rouleaux formation. There is leukopenia with moderate neutropenia, lymphopenia and some



They put differential diagnosis of SLE, juvenile dermatomyositis and other vasculitis

Ultrasound abdomen:

*Hepatomegaly.

*Spleen and kidneys measure slightly above the upper limit of normal size for the age.

*Mild left renal pelviectasis (SFU I).

*No pathological lymphadenopathy.

Echocardiography: normal

MANAGEMENT

Admitted under general pediatrics and consulted rheumatology consultant. Completed infectious and malignancy work up.

They have made the differential diagnosis of SLE, juvenile dermatomyositis and other vasculitis

Child had low and depressed mood after admission &evaluated by "child and adolescent psychiatry"

Patient has symptoms suggestive of major depression disorder as it is obvious in her deterioration academically, socially and functionally which can be explained in her condition by multiple factors in term of

- Her recent diagnosis of SLE
- To what extent her brain is involved by the active disease
- Her coping with the parents separation (since her condition deteriorated post their separation)
- Patient has been started recently on steroid to control her illness which might itself deteriorate her depressive symptoms.

Patient started on sertraline 12.5 mg daily and plan for follow up in the clinic

Discharge on

Esomeprazole 20mg daily

- Prednisolone 60mg daily (1.5mg/kg/day)
- Calcium carbonate 600mg BID
- Topical mometasone (0.1%, once daily on affected areas)
- Hydroxychloroquine 200mg daily
- Sertraline 12.5mg daily
- Magic mouthwash
- Ibuprofen
- Paracetamol
- Normal Saline nasal drops

DISCUSSION

- The most common initial symptoms are the gradual onset of fever, weight loss, and fatigue, often with progression of symptoms for several weeks to months prior to diagnosis
- Nonpainful arthritis of the small joints and renal disease are commonly overlooked before the diagnosis of SLE is established.
- The classic malar rash is present in only approximately one-third of individuals at the onset of disease and therefore must not be relied upon to suggest the diagnosis.
- Hematologic, neuropsychiatric, and pulmonary manifestations are also common at presentation.

Laboratory Findings

Common laboratory findings in children with SLE, in addition to the hematologic abnormalities, include

- hypocomplementemia
- presence of autoantibodies, such as antinuclear antibodies (ANAs) double-stranded DNA (dsDNA) antibodies, antibodies to the extractable nuclear antigens (ENAs), and antiphospholipid antibodies
- Vitamin D deficiency is frequent at presentation but is not pathognomonic for SLE

Treatment

The goals of therapy for patients with SLE are to ensure long-term survival, achieve the lowest possible disease activity, prevent organ damage, minimize drug toxicity, improve quality of life, and educate patients and their families about their role in disease management

CONCLUSION

- Based on strong research evidence and consensus, the most common disease manifestations at diagnosis of pSLE are constitutional symptoms, arthritis, and malar rash.
- Based on some research evidence and consensus, patients with pediatric SLE tend to have major organ system involvement (renal/central nervous system) and a greater disease burden compared with adults. Despite these findings, mortality is low.
- The diagnosis of pediatric SLE is unlikely if the ANA is negative, and most patients with SLE have a positive ANA at a titer ≥1:160.

REFERENCES

- Childhood-onset systemic lupus erythematosus (SLE): Clinical manifestations and diagnosis – UpToDate
- https://publications.aap.org/pediatricsinreview/article/33/2/62/34718/Pediatric-Systemic-LupusErythematosusMore-Than-a?autologincheck