ejpmr, 2018,5(10), 5-7.

SJIF Impact Factor 4.897

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Case Report

ISSN 2394-3211

EJPMR

SYSTEMIC LUPUS ERYTHEMATOSUS COMPLICATED BY ISCHAEMIC STROKE AND DEEP VEIN THROMBOSIS IN A NIGERIAN LADY

Oguamanam Okezie Enwere*[1] and Angelita Mariae Obodo[2]

[1]Department of Internal Medicine, Faculty of Medicine, Imo State University, Imo State.
[2]Department of Internal Medicine, Faculty of Medicine, Madonna University, Elele, Rivers State.

***Corresponding Author: Dr. Oguamanam Okezie Enwere**

Department of Internal Medicine, Faculty of Medicine, Imo State University, Imo State.

Article Received on 23/07/2018 **Article Revised on 13/08/2018** **Article Accepted on 02/09/2018**

ABSTRACT

Background: Systemic lupus erythematosus (SLE) is an autoimmune disease with varied presentation associated with increased morbidity and mortality in those affected. Also, SLE is associated with higher risks of strokes and DVT than the normal population. **Materials and Methods**: We report the case of a 39years old Nigerian lady who presented with an ischaemic stroke and deep vein thrombosis (DVT) diagnosed as having SLE. **Result**: A 39years old Nigerian lady who was taken to a prayer house after she fell at home and noticed to be weak on the right limbs. She stayed here for a week, subsequently developing quadriplegia, multiple pressure sores and sepsis before being taken to a hospital. At the first hospital she had a CT brain which confirmed a left ischaemic stroke, positive anti-dsDNA antibodies and positive fibrin degradation products. She was then referred to us for further care. **Conclusion**: Strokes can occur commonly in SLE especially with coexisting risks as hypertension. Also, immobility and SLE makes risk of DVT to be exaggerated. Prompt and appropriate treatment is cardinal to reducing morbidity and mortality in SLE.

KEY WORDS: Systemic lupus erythematosus, stroke, deep vein thrombosis, Nigeria, Lady.

INTRODUCTION

Systemic lupus erythematosus (SLE) is a multisystemic, clinically heterogeneous disease established to be autoimmune in origin, characterized by the presence of autoantibodies directed against nuclear antigens and known to present in a variety of different ways.[1,2] Among African black population, SLE is thought to be common but under-reported with a predilection for the female sex, comprising over 95% of all cases of SLE.[3]

The commonest presentations of SLE among Nigerians are Polyarthralgia, fever and hair loss; however, the neuropsychiatric presentation is also common and seen in about 20% of patients.[1-3] The American College of Rheumatology has described 19 different clinical neuropsychiatric manifestations but also without a single, simple diagnostic test.[4] But histopathologic and radiological studies show various cerebral abnormal changes in patients with SLE e.g micro and macroinfarcts, cortical atrophy, parenchymal hemorrhage and demyelination.[5] CNS manifestations is associated with increased morbidity and mortality in SLE patients.[6] Cerebrovascular disease (CVD) comprises the fourth most common neuropsychiatric manifestation attributable to SLE, with strokes (55% of all cerebrovascular events) being the most predominant followed by transient ischaemic attacks (25%).[4,7] The relative risk of strokes in SLE is higher than the general population no matter the type. SLE is associated with a two-fold higher risk of ischaemic stroke, a three-fold higher risk of intracerebral haemorrhage, and an almost four-fold higher risk of subarachnoid haemorrhage compared to the general population.[8]

SLE patients are also at increased risk of deep vein thrombosis (DVT) and, the causes of both cerebrovascular disease and DVT are multifactorial; such as hypercoagulable state, lupus anticoagulant, hypertension, cerebral vasculopathy, inflammation, atherosclerosis, thrombosis, emboli of Libman-Sacks endocarditis and glucocorticoid treatment.[9,10]

In this article, we report the case of a young Nigerian lady who presented with an ischaemic stroke and deep vein thrombosis that was diagnosed with SLE.

CASE REPORT

The patient is a 39years old female baker referred to our care from a private facility with quadriplegia. She is a mother of two (2) children who was in apparent good health until one (1) month before presenting to our care; she had developed sudden onset weakness one evening while serving food in her kitchen and subsequently fell onto the floor. She was observed to be weak on the right upper and lower limbs. There was no loss of consciousness, no prior headache and no subsequent

vomiting. No seizures and no history of fever. She had no previous history of hypertension or diabetes mellitus; nor did she have a previous history of heart disease. She was initially thought to have developed a left hemispheric cerevascular disease in the young.

She was subsequently taken to a prayer house where she spent about 2 weeks. The level of care she received was suboptimal as she developed quadripariesis (likely from a second stroke) and multiple pressure sores; in the gluteal region bilaterally, shoulders, ears, heel and ankles. She was again moved to a private healthcare facility where, in addition, she was noted to have elevated blood pressure and features of sepsis from infected pressure sores as well as deep vein thrombosis (DVT).

She had the following investigations done with their corresponding results:
1. Complete blood count: anemia and leukocytosis (neutrophilia)
2. Urinalysis: proteinuria; but electrolytes, urea and creatinine were within normal range
3. Erythrocyte sedimentation rate: > 140mm in 1st hour (Westergreen)
4. Positive and very high titres of anti-double stranded DNA antibodies
5. High D-dimer titres
6. A CT-brain scan: Sub acute left internal capsular and caudate infarcts.

A diagnosis of systemic lupus erythematosus (SLE) was made, complicated by cerebral infarction and DVT.

She was commenced on antibiotics and physiotherapy before she was referred to our care for further management.

At presentation to our care, she looked chronically ill and emaciated, pale, afebrile, conscious but with expressive aphasia and bilateral pitting leg edema.

In the musculo-skeletal system: she had multiple pressure sores and unable to move both lower limbs and right upper limb. However, she managed a flicker of movement in the left upper limb.

Further examination revealed the following: Pulse rate = 116/min (regular and normal volume); Blood pressure = 150/110mmHg with S3 gallop; respiratory rate = 26/min (regular) with right basal crackles; palpable splenomegaly 6cm below the left costal margin.

She was thought to be in heart failure caused by poorly controlled blood pressure and anemia.

She had blood transfused and commenced on intravenous furosemide 40mg BID, tab amlodipine, subcutaneous heparin, oral hydroxychloroquine and antibiotics. The surgeons were invited to help manage the pressure sores with a view to having skin grafts where necessary, while we continued daily wound dressing. Physiotherapy was also commenced.

By the second week of admission, she had become more stable with normal pulse and blood pressure with no leg swelling. By this time she was only able to lift the left upper limb against gravity but still had expressive aphasia.

DISCUSSION

SLE is now considered to be common among the Nigerian population and there is a growing awareness of it various modes of presentation and ready availability of its diagnostic test. SLE is more common in women, particularly those of childbearing age. This increased incidence may be attributed to hormones, namely estrogen.[11] The neuropsychiatric presentation, such as stroke, can easily present similarly with other risks such as hypertension or diabetes mellitus.

In this patient, whose initial presentation was in keeping with a left cerebrovascular disease in a 39years old lady with two children, a stroke, without prior history of hypertension or diabetes prompted further investigations for another risk. A positive and very high titre of anti-double stranded DNA antibodies observed in this patient proved to be specific and diagnostic for SLE.[1]

SLE carries a higher risk of stroke, of all types, among the young compared to the general population.[7,8] However, the observation of an elevated blood pressure at presentation may suggest another risk of CVD which may act in a geometric fashion to tilt this patient into developing an ischaemic stroke. Other risks of CVD have been known to co-exist in individuals with SLE who develop a stroke.[9,10]

Development of DVT in this patient was not surprising either. SLE is associated with a higher risk of DVT compared to other individuals.[10] She was largely immobile as she was quadriplegic with suboptimal care prior to presenting to us.

Treatment options in patients with SLE are varied with good maintenance of remission recorded if it is commenced early before onset of target organ damage. Such options include antimalarials, steroidal and non-steroidal anti-inflammatory agents and immunosuppressive drugs, including cyclophosphamide, azathioprine, mycophenolic acid, methotrexate as well as newer emerging concepts like anti-cytokine therapy, alpha-interferon, immunoglobulins and antioxidants.[11,12] Use of heparin anticoagulation is routinely recommended in patients with SLE in addition to hydroxychloroquine, which has been shown to reduce the risk of thrombosis, as we did in this patient.[10] This patient was already at risk of developing thrombosis and would have done well to have had her commence these drugs earlier as prophylaxis. Once target organ damage sets in like

neuropsychiatric, renal or hematological, morbidity is increased. Therefore, the goal for SLE patients with early diagnosis will be for prompt treatment and prevention of complications.

CONCLUSION

SLE awareness and diagnosis is increasing among the black African population and it can present with a varied number of symptoms. Neuropsychiatric presentation, as stroke, can occur commonly especially with coexisting risks as hypertension. Also, immobility and SLE makes risk of DVT to be exaggerated. Prompt and appropriate treatment is cardinal to reducing morbidity and mortality in SLE patients.

ACKNOWLEDGEMENT

We thank the entire staff of the Female medical ward at Madonna University teaching hospital and the relatives of the patient who encouraged us to bring this to the notice of all.

Conflict of interest: None.

REFERENCES

1. Manson JJ and Rahman A. Systemic lupus erythematosus. Orphanet Journal of Rare Diseases 2006; 1: 6 doi:10.1186/1750-1172-1-6
2. Cojocaru M, Cojocaru IM, Silosi I, Vrabie CD. Manifestations of Systemic Lupus Erythematosus. Maedica-A Journal of Clinical Medicine 2011; 6(4): 330-336.
3. Adelowo OO, Oguntona SA. Pattern of systemic lupus erythematosus among Nigerians. Clin Rheumatol. 2009 Jun; 28(6): 699-703. doi: 10.1007/s10067-009-1139-6
4. The American College of Rheumatology nomenclature and case definitions for neuropsychiatric lupus syndromes. Arthritis Rheum 1999; 42: 599-608.
5. Brey RL. Neuropsychiatric lupus: Clinical and imaging aspects. Bull NYU Hosp Jt Dis. 2007; 65: 194–9.
6. Ainiala H, Dastidar P, Loukkola J, Lehtimäki T, Korpela M, Peltola J, et al. Cerebral MRI abnormalities and their association with neuropsychiatric manifestations in SLE: A population-based study. Scand J Rheumatol. 2005; 34: 376–82.
7. Hanly JG, Li Q, Su L, Urowitz MB, Gordon C, Bae SC, Romero-Diaz J, Sanchez-Guerrero J et al. Cerebrovascular Events in Systemic Lupus Erythematosus. Arthritis Care Res. 2018 Jan 5. doi: 10.1002/acr.23509.
8. Holmqvist M, Simard JF, Asplund K, Arkema EV. Stroke in systemic lupus erythematosus: a metaanalysis of population-based cohort studies. RMD Open 2015; 1: e000168. doi:10.1136/rmdopen-2015-000168
9. Ward MM. Premature morbidity from cardiovascular and cerebrovascular diseases in women with systemic lupus erythematosus. Arthritis Rheum. 1999; 42: 338–46.
10. Al-Homood IA. Thrombosis in Systemic Lupus Erythematosus: A Review Article. ISRN Rheumatology Volume 2012 doi:10.5402/2012/428269
11. Maidhof W, Hilas O. Lupus: An overview of the disease and management options. P T. 2012 Apr; 37(4): 240-9.
12. Yildirim-Toruner C, Diamond B. Current and Novel Therapeutics in Treatment of SLE. J Allergy Clin Immunol. 2011 February; 127(2): 303–314. doi:10.1016/j.jaci.2010.12.1087