Systemic Lupus Erythematosus Causing Depressive Disorder - A Case Report

Preethi Rebello¹, Manisha Sharma², Pavithra P Rao¹, Fakirappa B Ganiger², S Malarmathi³, Avinash Joe⁴, Aruna Yadiyal⁵

¹Assistant Professor, ²Post Graduate Resident, ³Clinical Psychologist, ⁴Senior Resident, ⁵Professor, Department of Psychiatry, Fr Muller Medical College, Kankanady, Mangalore - 575002, Karnataka.

Corresponding Author: Pavithra P Rao

ABSTRACT

Systemic Lupus Erythematosus (SLE) is a multi-systemic, chronic inflammatory disease of autoimmune nature. Patients with SLE present with neuropsychiatric symptoms commonly and these sometimes present quite early in the course of the illness. Screening of patients with SLE for these symptoms and prompt management of these symptoms in such patients will improve the course and outcome of this chronic autoimmune disorder. It also helps them in improving their quality of life. This is a case report of a patient with SLE who presented with multiple complaints and depressive symptoms, and the management of the patient.

Key words: Systemic Lupus Erythematosus, Organic depressive disorder, Neuropsychiatric symptoms

INTRODUCTION

Systemic Lupus Erythematosus (SLE) is an autoimmune disease in which body's immune system reacts against itself. This causes damage and dysfunction of various systems in the body and the central nervous system is one of the important systems which are affected. SLE has Neuropsychiatric implications and these implications are the least understood among its other effects. About 14 to 80 percent of adult patients with SLE and 22 to 95 percent of Children with SLE have neuropsychiatric complications due to SLE. (f-11) These complications can occur despite of there being no serologic markers or in the absence of other systemic diseases. (12) This increases not only the morbidity due to the disorder but also increases the mortality rates. (13,14) The neuropsychiatric complications of SLE are multifactorial due to presence and increase of various inflammatory cytokines and autoantibodies resulting in neuronal injury. The neuropsychiatric symptoms in SLE can also be due to added stress of disability and pain in the individual causing socio occupational problems. They can also occur as a result of adverse reactions of certain medications which are given as treatment of SLE like immunosuppressive cyclophosphamide, azathioprine, mycophenolate mofetil, and methotrexate. (1) SLE is present in 1 to 12 people per 5000 worldwide and psychiatric symptoms like depression and anxiety are common in these patients. (15) 25% of patients with SLE have a Major depressive disorder and 37% have anxiety disorders. (16) These Psychiatric symptoms may be one of the earliest symptoms to present in SLE. Identification and management of these symptoms will improve quality of life of the patient and also help in improvement of their coping abilities which will be an added life skill for them while living with their chronic illness.

This case report indicates the importance of identifying a depressive episode in a patient with SLE and how treatment of depression improves the management of SLE in the long term.

CASE DESCRIPTION

A 38 year old married female. homemaker by occupation presented to Psychiatry outpatient department complaints of low back ache and joint pains since 1 year 3 months, decreased sleep, decreased appetite, decreased energy and loss of interest since 1 year, generalized weakness and giddiness since 4 months. She was diagnosed as reactive thyroiditis 1 year 3 months back and was given Thyroxine 100 mcg for 6 months, and later in view of improved TFT (Thyroid Function Tests) this was later stopped. She had history suggestive of malar rash, photosensitivity, oral ulcers, sacroiliac joint pain since 1 year 3 months. 3 months prior to presenting to us in Outpatient department she was diagnosed as SLE by a Rheumatologist and started on Hydroxychloroquine and Prednisolone which the patient stopped after 10 days. She had no significant past and family history of Medical and Psychiatric disorders. She was moderately built and poorly nourished and her BMI was 17.57 Kg/M2. Her heart rate was elevated with 140 beats per minute, sinus rhythm and her other Vitals were normal and systems were within normal limits.

On Mental status examination she was conscious and alert, her Psychomotor activity was decreased, talk was decreased in volume, tone and increased in reaction time. She reported her mood to be sad and her affect was depressed with decreased range, reactivity and increased in intensity. She reported of death wishes but no active suicidal ideation. She reported of ideas of worthlessness. There were no psychotic symptoms and her cognitive symptoms were intact.

Blood investigation revealed normal Complete Blood count, Renal function Tests, Liver Function Tests and Blood sugar levels. Electrocardiography was normal except for elevated Heart rate. Thyroid function tests revealed raised FT4 (Free Thyroxine) but normal T3 (Triiodothyronine), TSH (Thyroid Stimulating Hormone) and T4(Thyroxine)

levels. Chest X ray was normal, Magnetic Resonance Imaging of the brain was normal. Ultrasound Abdomen was Normal. Serology Tests came positive for ANA (Anti Nuclear Antibody) and pANCA (perinuclear Anti-Neutrophil Cytoplasmic Antibodies) and gave an impression of SLE.

Rheumatology consultation asked for and in view of SLE she was started on Hydroxychloroquine 200 mg per Endocrinology and cardiology reference was asked in view of elevated FT4 and heart rate. She was initially started on Tab. Propranolol but as there was no improvement in Heart rate and also in view Propranolol worsening sleep depressive symptoms it was changed to Tab. Verapamil 40mg twice a day following which her heart rate came back to normal level. Patient had complained of Pain while defecation for which surgery reference was given and after local examination, was diagnosed as Fissure in Ano and started on a laxative and local anesthetic gel. Patient had also complained about pain in right Temporomandibular (TM) joint region for which ENT reference was given, after which she was diagnosed as right TM joint arthralgia and advised hot fomentation and local gel for anesthesia.

For her depressive symptoms she was started on Tab. Duloxetine initially at 20 mg once a day and gradually over time increased to 100 mg per day in divided doses. As Duloxetine has evidence for improving pain syndromes as well as depression, it was chosen over other antidepressants. For her sleep she was started on Tab. Nitrazepam. During her stay in hospital patient had reported of having panic attacks and being unable to go to the bathroom or toilet alone. The stressor for this was her slip and fall in bathroom while at home alone. She would always be noticed to take her mother along with her to the bathroom or toilet though her motor were within normal functions Exposure and response prevention technique was initiated during her stay in hospital and she improved in 2 weeks time and was able to do her Activities of daily living independently by the time of discharge. Patient and family members were psychoeducated about the nature and prognosis of her chronic illness. She was also initiated on Cognitive Behaviour Therapy to help her manage her cognitive distortions and also help in better coping with her chronic disorder. She was also taught relaxation, distraction and mindfulness techniques to help her cope with her multiple pains and disabilities. Patients' depressive symptoms improved and after admission for about 28 days she was discharged. Her diagnoses on discharge were SLE, Organic Depressive disorder, Hyperthyroidism and Fissure in ano. On her later outpatient follow ups she found to have improvement in depressive symptoms, managing her family independently and also coping with her other ailments well. Her antidepressants were gradually tapered along with the benzodiazepine and on last follow up she was on only 20 mg of Duloxetine with no further deterioration of her SLE symptoms as well as Psychiatric symptoms.

CASE DISCUSSION

In this case a patient with SLE presented with multiple somatic complaints and depressive symptoms. It is very common for patients with unidentified autoimmune disorders to be diagnosed erroneously as Somatization disorder. Hence a patient with multiple somatic complaints should be evaluated for an autoimmune disorder before reaching a diagnosis of somatization disorder. This particular patient was already diagnosed as SLE when she presented to us with depressive disorder. But managing a patient with SLE and depression requires a multidisciplinary team involvement. It is also important to look for interactions between different drugs which the patient would be on for different systemic involvement as well as rule out if the psychiatric symptoms presented with, are caused by the drugs given for modifying SLE. (1) When choosing a particular psychotropic medication it is important to if the pharmacokinetics and pharmacodynamics of the particular medication will interfere with the systemic involvement of any other system involved due to SLE and hence increase the chances of adverse drug reactions. There are certain Psychotropic medications Phenothiazine which are known to cause as well as exacerbate SLE and therefore they should be avoided if possible. (19) Apart pharmacotherapy for depressive initiating the patients symptoms, Psychological therapy also will help them to cope with their chronic illness better. The techniques taught to them will help them deal with exacerbations later in their course of illness and this will in turn decrease the need for unnecessary pain killers and also improve their outcome by helping them cope with new onset symptoms. (20)

This case points to the importance of looking at the patient as a whole and not only the psychiatric symptoms especially in cases related to autoimmune diseases since they have a multisystemic involvement. Treating other symptoms along with the psychiatric symptoms further gets the patient involved in the treatment and increases their compliance in the long run. It also helps them to open up about new onset symptoms and gives an opportunity to manage pain symptoms due to SLE by pharmacological as well as psychological methods.

CONCLUSION

Systemic lupus erythematosus (SLE) is a multi-systemic, chronic inflammatory disease of autoimmune nature, which can impair performance in daily life activities which further decreases the quality of life. Patients with SLE present with a number of neuropsychiatric symptoms and these are seen in as common as 80 % of patients with SLE. Screening of patients for these symptoms and treating these symptoms will not only help the patients to resolve the current symptoms but also help them to

cope better with new onset symptoms later in the course of their chronic illness.

REFERENCES

- 1. Popescu A, Kao AH. Neuropsychiatric systemic lupus erythematosus. Curr Neuropharmacol. 2011;9(3):449-457. doi:10.2174/157015911796557984
- 2. Ainiala H, Loukkola J, Peltola J, Korpela M, Hietaharju A. The prevalence of neuropsychiatric syndromes in systemic lupus erythematosus. Neurology. 2001;57:496–499.
- 3. Brey R, Holliday SL, Saklad AR. Neuropsychiatric syndromes in lupus: prevalence using standardized definitions. Neurology. 2002;58(8):1214–1220.
- 4. Hanly JG, Urowitz MB, Sanchez-Guerrero J, Bae SC et al.Systemic Lupus International Collaborating Clinics. Neuropsychiatric events at the time of diagnosis of systemic lupus erythematosus: An international inception cohort study. Arthritis Rheum. 2007;56(1):265–273.
- 5. Zhu TY, Tam LS, Lee VW, Lee KK, Li EK. Systemic lupus erythematosus with neuropsychiatric manifestation incurs high disease costs: a cost-of-illness study in Hong Kong. Rheumatology (Oxford) 2009;48(5): 564–568.
- 6. Muscal E, Brey RL. Neurologic manifestations of systemic lupus erythematosus in children and adults. Neurol. Clin. 2010;28(1):61–73.
- 7. Mikdashi J, Handwerger B. Predictors of neuropsychiatric damage in systemic lupus erythematosus. Rheumatology. 2004;43:1555–1560.
- 8. Harel L, Sandborg C, Lee T, von Scheven E. Neuropsychiatric manifestations in pediatric systemic lupus erythematosus and association with antiphospholipid antibodies. J. Rheumatol. 2006;33(9):1873–1877.
- Sibbitt WL Jr, Brandt JR, Johnson CR, Maldonado ME, Patel SR, Ford CC, Bankhurst AD, Brooks WM. The incidence and prevalence of neuropsychiatric syndromes in pediatric onset systemic lupus erythematosus. J. Rheumatol. 2002;29(7): 1536–1542.
- 10. Benseler S, Silverman E. Neuropsychiatric involvement in pediatric systemic lupus erythematosus. Lupus. 2007;16:564–571.

- 11. Hiraki LT, Benseler SM, Tyrrell PN, Hebert D, Harvey E, Silverman ED. Clinical and laboratory characteristics and long-term outcome of pediatric systemic lupus erythematosus: a longitudinal study. J. Pediatr. 2008;152(4):550–556.
- 12. Sabbadini M, Manfredi A, Bozzolo E,et al . Central nervous system involvement in systemic lupus erythematosus patients without overt neuropsychiatric manifestations. Lupus. 1999;8(1):11–19.
- 13. Hanly J, Fisk J, McCurdy G Fougere L, Douglas J. Neuropsychiatric syndromes in patients with systemic lupus erythematosus and rheumatoid arthritis. J. Rheumatol. 2005;32(8):1459–1456.
- 14. Kovacs J, Urowitz M, Gladman D. Dilemmas in neuropsychiatric lupus. Rheum. Dis. Clin. North Am. 1993;19:795–819.
- 15. Ghodke-Puranik Y, Niewold TB. Immunogenetics of systemic lupus erythematosus: a comprehensive review. J Autoimmun 2015;64:125–36.
- 16. Zhang L, Fu T, Yin R, et al. Prevalence of depression and anxiety in systemic lupus erythematosus: a systematic review and meta-analysis. BMC Psychiatry 2017;17:70.
- 17. Gao HX, Campbell SR, Cui MH, et al. Depression is an early disease manifestation in lupus-prone MRL/lpr mice. J Neuroimmunol 2009;207:45–56.
- 18. Marian G, Nica EA, Ionescu BE, et al. Depression as an initial feature of systemic lupus erythematosus? A case report. J Med Life 2010;3:183–5.
- 19. Fabius AJM, Gaulhofer WK. Systemic Lupus Erythematosus Induced by Psychotropic Drugs. Acta Rheumatologica Scandinavica 1971;17:1-4:137-147, DOI: 10.3109/rhe1.1971.17.issue-1-4.19
- 20. Da Hora, T.C., Lima, K. & Maciel, R.R.B.T. The effect of therapies on the quality of life of patients with systemic lupus erythematosus: a meta-analysis of randomized trials. Adv Rheumatol 59, 34 (2019). https://doi.org/10.1186/s42358-019-0074-8

How to cite this article: Rebello P, Sharma M, Rao PP et.al. Systemic lupus erythematosus causing depressive disorder - a case report. International Journal of Research and Review. 2020; 7(6): 404-407.
