CASE REPORT

MANIA IN AN INDIVIDUAL WITH SYSTEMIC LUPUS ERYTHEMATOSUS – A CASE REPORT

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INTRODUCTION

Systemic lupus erythematosus (SLE) is an autoimmune disorder in which organs undergo damage by tissue binding autoantibodies and immune complexes. Women are more frequently affected than men[1] with ninety percent of patients being women of child bearing age[2].

Neuropsychiatric manifestations are common and occur in around 14-80% of patients with SLE[3]. No particular neurologic or psychiatric manifestation is characteristic of SLE and the form and pattern of neuropsychiatric symptoms vary significantly. Most common manifestations of central nervous system lupus are cognitive dysfunction, headache, depression and sleep disturbance[4,5]. Studies have shown a high frequency of psychiatric comorbidities in subjects with SLE, especially mood and anxiety disorders [6,7,8.] The American College of Rheumatology (ACR) Nomenclature provides case definition for 19 neuropsychiatric syndromes seen in SLE[9]. However, these case definitions were not found to be effective in differentiating neuropsychiatric SLE (NPSLE) patients from those with neuropsychiatric manifestations not associated with SLE[10,11].

Here we present a case of mania in a patient with SLE and discuss the differential diagnosis of neuropsychiatric manifestations of SLE and primary mood disorder.

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Case Report

Our patient was a 28year old female, who was previously diagnosed with SLE. She presented with one-month history of irritable mood, increased talkativeness, increased activity, decreased need of sleep, excessive spending of money, excessive grooming and grandiose ideas that she was a famous movie star and had directed numerous movies.

This was the third episode with two similarly presenting previous episodes at age 26 and 27 years. Each episode lasted for two months and was treated with mood stabilisers, antipsychotics and steroids (divalproex sodium 1500mg, chlorpromazine 400mg, prednisolone 50mg). She presented with psychiatric symptoms in each episode. The treatment during each episode (both steroids and psychotropics) was discontinued by the patient once her symptoms remitted after each episode. Each psychiatric episode was also accompanied by anaemia, thrombocytopenia, leucopenia and raised ESR.

Her laboratory data included high titres of antinuclear antibodies (ANA) and antiRo52 antibodies. Titres of anti-double stranded DNA antibody, anti-smith antibody, anti ribosomal P antibody, antiphospholipid antibody were normal. Complement level was found to be normal. MRI-Brain showed no significant abnormality and EEG was found to be normal. Her CSF study also showed normal results.

She also had a past history of three episodes of autoimmune haemolytic anaemia, in childhood at age 12, 14 and 15 years of age. Each

episode had been treated with steroids and improved and the treatment was discontinued within a few months of clinical improvement. No behavioural or other autoimmune symptoms were recorded in childhood.

There was positive family history of psychiatric illness with symptoms of chronic psychosis in her mother and a single episode of psychosis with full remission in her paternal cousin.

During our interview, the patient was found to be cheerful with increased quantum, tone and rate of speech. Patient had grandiose delusions that she was a famous movie actress and a director. There were no perceptual disturbances. Her score on Young's Mania Rating Scale was 22/60. She was initially treated with risperidone 8mg/d, sodium valproate 1400 mg/d, diazepam 5mg/d. Risperidone was discontinued after a few days and she was switched to haloperidol 10mg/d as she had persistent hypotension with Risperidone. All her previous episodes had been treated with sodium valproate and hence it was initiated. As adviced by the rheumatologist, Inj. dexamethasone 8 mg iv for 3 days followed by 4 mg iv for two days was given which was then changed to prednisolone 20 mg/d. After two weeks of treatment, her symptoms ameliorated with no irritable mood, no talkativeness, normal motor activity and normal sleep pattern. Patient was discharged after three weeks with a prescription of haloperidol 10mg/d, sodium valproate 800mg/d, diazepam 5 mg/d, prednisolone 20mg/d, azathioprine 50mg/d and hydroxychloroquine 200 mg/d. She is under regular follow up and has been euthymic with the prescribed treatment.

Discussion

Central nervous system neuropsychiatric lupus refers to various psychiatric and neurological manifestations that develop secondary to the involvement of CNS in patients with SLE. The American College of Rheumatology (ACR) has formulated case definitions, reporting standards and diagnostic testing recommendations for the 19 neuropsychiatric SLE syndromes[9].

Autoantibodies detected in the serum and/or CSF, that have been reported to segregate with patients presenting with neuropsychiatric lupus include (1) anti-neuronal antibodies (2) brain lymphocyte cross reactive antibodies (3) antiribosomal P antibodies and (4) antiphospholipid antibodies[12]. A psychiatric disturbance due to CNS lupus is a diagnosis of exclusion, where all other possibilities of observed symptoms have to be considered, including infection, electrolyte imbalance, renal failure, drug effects, mass lesions, arterial emboli and primary psychiatric disorders (such as bipolar disorder or severe stress disorder resulting from a chronic and life-threatening disease)[13].

Our patient was diagnosed with autoimmune haemolytic anaemia in the past and was on irregular treatment with steroids. The first manic episode occurred at the age of 26 years, many years after last steroid use which rules out a possibility of steroid induced psychosis. She was diagnosed with SLE and was co-prescribed with both steroids and mood stabilisers. The second and third episode of mania occurred after discontinuation of treatment.

All three episodes were accompanied by haematological disturbances like anaemia, leukopenia and thrombocytopenia. Extractable nuclear antigen profile showed high titres of ANA, antiRo antibodies (which have been found to be elevated in patients with NPSLE)[14]. Other autoantibodies which are typically associated with NPSLE like anti-NMDA, antiganglioside, antiphospholipid, anti-ribosomal-P antibodies were not detected in our patient[14].

In this patient, the first episode was in 2016, duration of symptoms was 2 months and she had been treated with .oral risperidone 4mg/d, lorazepam 2mg/d, divalproate sodium 1500mg/d and the treatment duration was for 4months. The second episode was in 2017, duration of symptoms was for 2 months and she had been treated with oral chlorpromazine 450mg/d, divalproate sodium 1500mg/d, nitrazepam 10mg/d with a treatment duration of 6 months. The current episode was the third and was treated as described above. Thus, all three episodes were treated simultaneously with mood stabilisers, antipsychotics and with steroids and both relapses occurred after discontinuation of both group of drugs. Hence in our patient, we can only consider a differential diagnosis of either neuropsychiatric manifestation of SLE or an independent comorbid mood disorder.

A strong family history of psychosis, a normal MRI brain study and EEG with lack of other system involvement except for haematological manifestations, typical manic presentation without other CNS signs or deficits like headache, seizures, cognitive dysfunction, the relative rarity of mania as a neuropsychiatric symptom in NPSLE all favour the differential diagnosis of a primary mood disorder.

A positive serology for SLE during each episode accompanied by haematological disturbances like leukopenia, thrombocytopenia and anaemia, and relation of each episode with discontinuation of immunosuppressants (though psychotropics were also started and discontinued simultaneously) is in favour of a differential diagnosis of neuropsychiatric SLE.

Current case definitions by ACR Nomenclature only list out and define common neuropsychiatric symptoms and are not effective in differentiating NPSLE patients from those with neuropsychiatric manifestations not associated with SLE[10,11]. The ACR classification criteria were not elaborated to replace clinical judgement or intended to make a clinical diagnosis in a given patient[15]. Thus, the distinction of primary psychosis vs SLE related neuropsychiatric symptoms is to be made by the treating clinician. This can have implications in both treatment and prognosis of the patients.

Conclusion

Symptoms of neuropsychiatric SLE vary significantly and psychiatric disturbances in a patient with SLE is a diagnosis of exclusion where other possibilities have to be considered including an independent comorbid psychiatric disorder. This case highlights the difficulty in the diagnostic process and the need for more studies on the differences between primary psychiatric disorders and neuropsychiatric SLE.

Reference

1. Frances Rees, Michael Doherty, Matthew J Grainge, Peter Lanyon, Weiya Zhang; The worldwide incidence and prevalence of systemic lupus erythematosus: a systematic review of epidemiological studies, Rheumatology, Volume 56, Issue 11, 1 November 2017, Pages 1945–1961
2. Amur S, Parekh A, Mummaneni P. Sex differences and genomics in autoimmune diseases. Journal of Autoimmunity Autoimmun. 2012;38(2-3):J254-J265
3. Vadacca, Marta & Buzzulini, Francesca & Rigon, Amelia & Coppolino, G & Palma Modoni, A & Massa, R & Afeltra, Antonella. (2011). Neuropsychiatric Lupus Erythematosus. Reumatismo. 58. 177-86.
4. Gulinello, Maria, Jing Wen, and Chaim Putterman. "Neuropsychiatric symptoms in lupus." Psychiatric annals 42.9 (2012): 322-328
5. Feinglass, E. J., Arnett, F. C., Dorsch, C. A., Zizic, T. M., & Stevens, M. B. (1976). Neuropsychiatric manifestations of systemic lupus erythematosus: diagnosis, clinical spectrum, and relationship to other features of the disease. Medicine, 55(4), 323-339.
6. Jarpa, E., Babul, M., Calderón, J., González, M., Martínez, M. E., Bravo-Zehnder, M., ... & Massardo, L. (2011). Common mental disorders and psychological distress in systemic lupus erythematosus are not associated with disease activity. Lupus, 20(1), 58-66.
7. R. L. Brey, S. L. Holliday, A. R. Saklad, M. G. Navarrete, D. Hermosillo–Romo, C. L. Stallworth, C. R. Valdez, A. Escalante, I. del Rincón, G. Gronseth, C. B. Rhine, P. Padilla, D. McGlasson Neurology Apr 2002, 58 (8) 1214-1220
8. Bachen, E. A., Chesney, M. A., & Criswell, L. A. (2009). Prevalence of mood and anxiety disorders in women with systemic lupus erythematosus. Arthritis Care & Research: Official Journal of the American College of Rheumatology, 61(6), 822-829.
9. Liang, M. H., Corzillius, M., Bae, S. C., Lew, R. A., Fortin, P. R., Gordon, C., ... Winer, J. B. (1999). The American College of Rheumatology nomenclature and case definitions for neuropsychiatric lupus syndromes. Arthritis and Rheumatism, 42(4), 599-608.
10. Ainiala, H., Loukkola, J., Peltola, J., Korpela, M., & Hietaharju, A. (2001). The prevalence of neuropsychiatric syndromes in systemic lupus erythematosus. Neurology, 57(3), 496-500.

11. Ainiala, H., Hietaharju, A., Loukkola, J., Peltola, J., Korpela, M., Metsänoja, R., & Auvinen, A. (2001). Validity of the new American College of Rheumatology criteria for neuropsychiatric lupus syndromes: a population-based evaluation. Arthritis Care & Research: Official Journal of the American College of Rheumatology, 45(5), 419-423.

12. Greenwood, D. L., Gitlits, V. M., Alderuccio, F., Sentry, J. W., & Toh, B. H. (2002). Autoantibodies in neuropsychiatric lupus. Autoimmunity, 35(2), 79-86.

13. Miguel EC, Pereira RM, Pereira CA, et al. Psychiatric manifestations of systemic lupus erythematosus: clinical features, symptoms, and signs of central nervous system activity in 43 patients. Medicine (Baltimore) 1994; 73:224.

14. Zandman-Goddard, G., Chapman, J., & Shoenfeld, Y. (2007, April). Autoantibodies involved in neuropsychiatric SLE and antiphospholipid syndrome. In Seminars in arthritis and rheumatism (Vol. 36, No. 5, pp. 297-315). WB Saunders.

15. The American College of Rheumatology nomenclature and case definitions for neuropsychiatric lupus syndromes Arthritis Rheum.(1999)42:599-608