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Case Report

A Rare Neuropsychiatric Manifestation in Systemic Lupus Erythematosus- A Case Report

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Abstract

A 17-year-old female who was recently diagnosed with SLE and taking medication for the same had developed symptoms of depression and nihilistic delusion post-initiation of treatment and hence steroids were discontinued after consultation with a local doctor. She was brought to psychiatry emergency in catatonia after a duration of 2 weeks of stopping steroids. On examination patient had immobility, staring look, posturing, rigidity, negativism. With Routine investigations, organic causes of catatonia were ruled out. Cyclophosphamide, prednisolone, lorazepam along with low dose antipsychotic, antidepressant were started and significant improvement in patient was noted. Catatonia was completely resolved. It is extremely important to pick this rare neuropsychiatric presentation of SLE to promptly initiate treatment and benefit the patient and understand the role of steroid in managing such cases.

Keywords: Catatonia; Neuropsychiatric Systemic Lupus Erythematosus; Lupus Erythematosus; Systemic

Case Report

Hereby presenting a case of 17-year-old, B. Ed student belonging to low socioeconomic status from rural background. History of frequent mouth ulcers were given. She had history of frequent fever spikes accompanied with seizures since early childhood. However, no seizures were noted in afebrile period. The frequency of such episodes increased since last one year. She had photosensitivity and frequent rashes. Blood investigations were suggestive of Systemic Lupus Erythematous and Tab Hydroxychloroquine 200mg BD and Prednisolone 10mg OD was started since past 2 months. In the subsequent days she was tearful, less interactive with family members, reduced interest in previous pleasurable activity had reduced appetite, disturbed sleep and expressed that she would die soon and insisted her family members to prepare a coffin for her and would tell the world is all changed and is no longer the same etc. She was not attending college like before. These symptoms continued for 1 month. After consultation with local doctor the steroids were stopped suspecting steroid induced mood changes. Following which over the next 15 days she was more withdrawn, starred at walls for longer time, remained mute, stayed sleepless, refused to have food, retained odd postures eventually Had urinary and fecal incontinence and was bed bound. With the above presentation she was brought to the Psychiatry department. Patient had no history of substance use, no family history of any psychiatric illness, no past history of any psychiatric illness.

On examination: Afebrile, poorly nourished. No active skin lesions were noted.

Vitals were stable. Fundus examination revealed - Bilateral Myopic Fundus. Conscious, an evident fixed stare, pupils reactive, unresponsive to simple commands, emotionally unresponsive, mutism, posturing, negativism, muscle resistance noted. Cognitive tests could not be performed. Bush-Francis Catatonia Rating Scale revealed a score of 18.

Complete Blood Count, Renal Function Test, Liver Function Test, Serum Electrolytes, Thyroid Function Test, C-Reactive Protein were found to be within normal limits. Hepatitis C Viral marker, Human Immunodeficiency Virus, Hepatitis B Antigen titer, and VDRL were non-reactive. Tuberculin skin test was negative.

USG abdomen showed free floating internal echoes suggestive of cystitis.

No abnormality was detected on Chest X-Ray

MRI-Brain revealed early global atrophic changes in both cerebral hemispheres. Mild prominent cerebellar folia.

Her ANA profile revealed the following:

- Nucleosomes Positive (+)
- Histone Positive (++)
- SmD1 Positive (+)
- Rib-P Protein (++)
- U1-snRNP Positive (+)
- Ku Positive (+)

Anti Phospholipid -IgG and IgM were not found elevated
Tab. Sertraline 50mg, Tab. Olanzapine 10mg HS with Inj. Lorazepam 2mg TID were started. Minimal improvement in catatonia with Lorazepam was seen.

Pediatrician opinion was taken. Inj. Methyl Prednisolone 1gram over three hours OD for 5 consecutive days followed by Tab. Prednisolone 30mg 0-0-1 were given. Tab. Hydroxychloroquine was advised to continue. Inj. Cyclophosphamide 650 mg was given over 4 hours. Tab Norfloxacin 400mg BD was given for 5 days.

While lorazepam was stopped and on initiating steroids the catatonia symptoms resumed, similarly while steroids were stopped and only lorazepam was continued the symptoms of catatonia persisted. With combination of steroids, cyclophosphamide and lorazepam significant improvement in catatonia symptoms over subsequent 2 weeks were seen. Inj. lorazepam was switched to oral lorazepam and later stopped.

During her follow-up after one month, she denied any history suggestive of mood or psychotic symptoms. Catatonia symptoms were absent.

Discussion

Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease leading to heterogenous clinical presentations. Neuropsychiatric SLE (NPSLE) is characterized by neurological and psychiatric manifestations and symptoms range from mild to severe in SLE. The pathogenesis causing NPSLE is poorly understood however possible pathogenic pathways proposed are inflammatory and thrombotic pathways. The most commonly associated antibodies with the autoimmune inflammatory mechanism of NPSLE include Anti-ribosomal-P. Others being anti-endothelial and anti-neural antibodies [1,2].

At times symptoms of NPSLE can overlap with that of steroid-induced psychiatric manifestations. Depression is the most common mood disorder in lupus. Direct CNS involvement, psychosocial stressors from disease burden are associated with depression in lupus, with other contributing factors includes higher anxiety at young age. Though steroid usage is associated with onset of depression it is usually associated with recent usage of high dose of prednisone (>20mg) [3]. Cutaneous SLE were found to be predictive of depression. Depression is likely to be seen more commonly in long term prednisone therapy, short-term higher prednisone therapy. Hence it is crucial to weigh the need of immunosuppressive effects of steroids against the possibility of causing additional psychiatric symptom [4].

Catatonia is not included in the 1999 American College of Rheumatology (ACR) manifestations of NPSLE or the 2012 Systemic Lupus Collaborating Clinics (SLICC) criteria. Case report of NPSLE presenting with catatonia are sparsely reported across literature. [5], [6] In this case report the patient showed minimal improvement in catatonia with starting benzodiazepines whereas on adding

steroids and initiating cyclophosphamide along with psychotropics there was substantial improvement in the patient profile. Hence it is important for a clinician to recognize catatonia as one of the neuropsychiatric manifestations of SLE and understand the role of steroids in management of such cases.

Conclusion

Catatonia is a rare psychiatric manifestation reported to be seen in SLE. The catatonia seen with SLE is completely reversible with steroid and/or cytotoxic drug therapy along with lorazepam. Hence it is highly essential to differentiate catatonia due to NPSLE from other causes of catatonia, so as treat effectively. Steroid tapering should be done in appropriate cases slowly with caution and prompt follow-up is warranted.

Bibliography

1. Mirabelli G., *et al*. "One year in review 2015: systemic lupus erythematosus". *Clinical and Experimental Rheumatology* 33.3 (2015): 414-425.

2. Sarwar S., *et al*. "Neuropsychiatric systemic lupus erythematosus: a 2021 update on diagnosis, management, and current challenges". *Cureus* 13.9 (2021).

3. Yoon S., *et al*. "Psychiatric symptoms in systemic lupus erythematosus: diagnosis and treatment". *Journal of Rheumatic Diseases* 26.2 (2019): 93-103.

4. Huang X., *et al*. "Predictors of incident depression in systemic lupus erythematosus". *The Journal of Rheumatology* 41.9 (2014): 1823-1833.

5. Boeke A., *et al*. "Catatonia associated with systemic lupus erythematosus (SLE): a report of two cases and a review of the literature". *Psychosomatics* 59.6 (2018): 523-530.

6. Chaudhury D., *et al*. "Catatonia-An unusual presenting clinical manifestation of systemic lupus erythematosus". *Reumatología Clínica (English Edition)* 13.4 (2017): 224-226.