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Neurological Manifestations in Systemic Lupus Erythematosus Patients

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Abstract

Central nervous system (CNS) involvement has been emphasised as one of the major SLE manifestations since the first descriptions of the disease and is among the leading causes of morbidity and mortality.

The aim of the present studies was to evaluate the various neurological manifestations in SLE and to assess the role of neuroimaging, electrophysiological studies in the diagnosis of subclinical neurological manifestations and to correlate neurological manifestations with disease activity.[3]

Introduction

Systemic lupus erythematosus (SLE) is a multi-system, chronic inflammatory disease characterized by autoantibody production. The disease is most frequently found in women of childbearing age and therefore may co-exist with pregnancy. the clinical manifestations of the disease are variable , that varied from mild subtle signs like headache and mood disturbance to life threatening conditions like acute confusional state, stroke and myelopathy .the wide range of presentations and differential diagnosis often pose a very difficult diagnostic challenge for clinicians**.**[2]

Nervous system involvement is frequently reported in 75% of patients in SLE and that varied from mild subtle signs like headache and mood disturbance to life threatening conditions like stroke and myelopath.[2]

Discussion

According a Centre Study from north east India , total of 52 patients were included in the study. the age of the patients ranged from 14 to 45 years with most of the patients (28.85%) were in the age group of 21 to 25 years. Nervous system was involved in 19 of 52 patients (36.54%).[2]

CNS was involved in 16 (30.76%) while PNS was involved in eight (15.38%) patients. Both CNS and PNS were involved in five (26.31%) patients. The most common feature was seizure disorder (57.89%).Six patients (31.57%) presented with acute confusional state. mild depression was present in five (26.31%) out of 19 patients with clinical NPSLE. Persistent headache, not relieved by narcotics was present in five (26.31%) patients .[2]

CSF analysis in this patient showed high protein and pleocytosis and CSF culture was sterile. There is a possibility of association of asceptic meningitis with the use of non steroidal anti inflammatory drugs.[2]

According a study from the European Social Fund (ESF) the most common type of seizure (87.5%) was Generalized Tonic Clonic Seizure (GTCS). One patient had partial seizure in the form of epilepsia partialis continua involving facial muscles. This is a rare finding reported only in few case reports as in this study. Although in most of the cases seizure is often accompanied by other systemic and neurological features, sometimes it may precede SLE by many years.[1]

prevalence of all types of headaches in SLE patents was not different from that of healthy control ,while another study has shown that SLE patients without neurological manifestations exhibit a decline in attention, memory .[1]

Acute meningitis is rare in SLE although there are reports of meningeal inflammation in one fifth of cases. One (5.26%) patient had features meningitis like neck rigidity.[1]

Conclusion

Nervous system involvement is frequent in SLE affecting both CNS and PNS. It can present in different ways like aseptic meningitis, cerebrovascular accident, headache, psychosis, seizure, depression, and various forms of peripheral neuropathies like mononeuropathy, polyneuropathy, autonomic neuropathy, plexopathy and cranial neuropathy.

References

1.Kirpichnikov,Sowers, European Social Fund (ESF) Different neurological manifestations in SLE patients; 2016.
2.Gui J, Liu Q, Feng L. SLE management of: a meta-analysis. PLoS One; 2013.

3.Epilepsy associated with systemic autoimmune disorders. Epilepsy Curr ; 2014.