Acute transverse myelitis associated with systemic lupus erythematosus: description of 5 cases.

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INTRODUCTION

More than 60% of patients with systemic lupus erythematosus (SLE) present neuropsychiatric involvement (PN).

Acute transverse myelitis (ATM) is the acute inflammation of the gray and white matter in one or more adjacent segments of the spinal cord partially or completely, observed in 1 to 2% of patients, manifesting with severe clinical neurological involvement with motor, sensory and sphincteric sequelae.

OBJECTIVES

Describe the demographic, clinical, laboratory, imaging characteristics, treatments and evolution of adult patients diagnosed with transverse myelitis associated with systemic lupus erythematosus.

METHODS

Our retrospective, observational, descriptive study included 5 adults older than 16 years diagnosed with SLE-associated transverse myelitis according to the ACR / EULAR 2019 criteria and the Transverse Myelitis Consortium Working Group. The clinical neurological compromise was evaluated according to the modified Hughs Scale

Table 1. Demographic, clinical and imaging characteristics.

	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
Age (years)	53	47	20	26	38
Gender	F	M	F	F	F
Comorbidities	HBP	no	no	Smoking	Myasthenia gravis
Previous LES	no	no	no	yes	no
Associated manifestations	Renal	Renal	Renal	Rash/arthritis/alopecia/ Pleural effusion	Óptic neuritis
SLEDAI	20	36	30	4	10
Motor involvement	paraparesis	Paraparesis	paraplejia	paraparesis	paraparesis
Bladder sphincter involvement	Yes	Yes	Yes	Yes	Yes
Sensitive level	T8-T9	T8	T8	T7	T8
Spinal MRI (Hyperintensity T2/stir)	Normal	TM	LETM (C1-medullary cone)	LETM (bulb-medullary cone)	Normal
Brain MRI (Hyperintensity T2/stir)	Yes	--	Normal	Yes	Normal
Gadolinium enhancement	No	--	No	No	No

LETM: Longitudinally extensive transverse myelitis

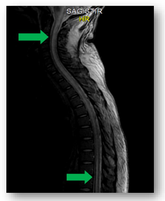
Table 2. Laboratory characteristics and treatments.

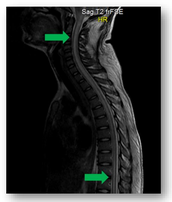
	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
Anti DNA	Negative	positive	positive 1/640	positive	positive
C3/C4	70/10	40/6	37/3	42/5	normal
Antiphospholipids	aCL IgM	aCL IgM e IgG	aCL IgM	--	LA
IV Cyclophosphamide	Yes	No	Yes	Yes	Yes
Inmunoglobulin IV 2g/k	Yes	Yes	Yes	Yes	No
Plasmapheresis	no	no	Yes	Yes	no
Rituximab	no	no	Yes	Yes	Yes
Hughes scale at 6 months	4	4	4	4	2
Recurrence	No	No	No	No	Yes

RESULTS

We describe five patients with a diagnosis of myelitis associated with SLE (Table 1), 4 women, the mean age of 36 years (SD: 16), with a mean hospital stay of 56 (SD: 8.5).

- In 4 cases, myelitis was the first manifestation of SLE, presenting in an acute and severe form in all cases with motor, sensory and sphincteric involvement.
- The SLEDAI showed high activity with a mean of 22.5 (SD: 14).
- The CSF (Table 2) of all patients presented elevated polymorphonuclear cells, hyperprotein spinal cord, and hypoglycorrhachia, having ruled out infectious events as causal. Two patients were evaluated for the presence of aquaporin 4 antibody (AQP4-ab), and three for oligoclonal bands with negative results.
- All patients received pulsed intravenous methylprednisolone and oral hydroxychloroquine.
- Clinical improvement was evidenced relative to renal involvement, but only 1 patient sowed little benefit in neurological clinical involvement after 6 months, according to the modified Hughs Scale.





CONCLUSION

The patients with SLE-associated myelitis in our series presented differences regarding age of presentation, imaging and serological findings, with similar clinical presentation and evolution. Most of the patients had another associated organic compromise, and in all cases severe neurological disability was observed as a sequel to myelitis.

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