v. 3, n. 68, 2023

International Journal of Health Science

TRANSVERSE MYELITIS AS INITIAL MANIFESTATION IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

Brenda Santana Araujo Giacomo

Celcilene Marques dos Santos Castelo Branco

Leticia Costa Sousa Nina
http://lattes.cnpq.br/0185413830891838

Maria Camila Santos de Souza
http://lattes.cnpq.br/9235980122402463

Abstract: The cause of myelopathy in Systemic Lupus Erythematosus (SLE) is not well understood, but this disease may be the result of an autoimmune reaction. Some authors suggest that there is a relationship between phospholipid antibodies and myelopathy. Transverse myelitis presents as a late manifestation of SLE, however, in rare cases, it may be the initial manifestation and occur regardless of systemic disease activity. After etiological investigation, in the case to be reported, diagnoses of SLE with neurological involvement (transverse myelitis) and urinary infection were assumed.

Goal: To report the case of a young patient diagnosed with SLE, who opened with urinary infection and transverse myelitis, describe her clinical, laboratory, imaging findings, treatment and evolution, highlighting the importance of early diagnosis, recognition of its various interfaces and emergency intervention.

Methods: In order to carry out this study, data from the medical records, interviews with the patient and family, photographic records of the diagnostic methods to which the patient was submitted and a literature review were analyzed with a search in the Scielo, Medline and Lilacs databases about the subject.

Conclusion: The case reported and the publications studied reinforce the emergency character and the identification of predisposing factors, clinical symptoms, imaging and laboratory tests for early recognition of SLE. Although rare, myelitis causes high morbidity and mortality. Some deaths during an episode of myelopathy, from sepsis during or after immunosuppressive therapy have been observed in studies.

Keywords: LES, Myelopathy, Transverse Myelitis, Infection, Early Diagnosis.

INTRODUCTION

Transverse myelitis is an acute inflammatory disease of the spinal cord with potentially serious consequences. The etiopathogenesis is still not completely understood, and an immunological mechanism seems to be involved. The evolution and prognosis are variable, ranging from complete resolution of the condition in a short time to permanent deficits. (SAISON, COSTEDOAT-CHALUMEAU, MAUCORT-BOULCH, et al. 2014)

Transverse Myelitis (TM) is a manifestation of the central nervous system that is rare in Systemic Lupus Erythematosus (SLE) and affects 1 to 2% of patients. It must be considered if the patient has a rapid evolution of one or more signs/symptoms: bilateral muscle weakness in the lower limbs, with or without involvement of the upper limbs; sensory disorder, with similar level of motor involvement, with or without intestinal or bladder involvement. An expansive lesion that causes medullary compression must be excluded, as well as an injury to the cauda equina. (COSTALATT, 2017)

The initial symptoms are nonspecific: fever, photophobia, nausea, vomiting, dizziness and neck pain. Afterwards, sensory and motor alterations, sphincter dysfunction may occur and its installation may take hours, days or even weeks. The patient in the report started with SLE with cystitis and showed signs of spinal cord injury with paresthesias in the upper limbs, paraplegia (sensory level T10) and psychosis with sudden onset within days. Currently patient with sensory level T10 paraplegia (walks with the aid of a wheelchair), lower limb atrophy, tremors at rest and upper limb movement.

Treatment of myelopathy must be started soon after diagnosis, as the prognosis demonstrates high morbidity and mortality. Delay in starting the correct

treatment may be an unfavorable outcome factor. The combination of intravenous methylprednisolone and cyclophosphamide pulses is the standard treatment for these patients. (FERREIRA, 2016)

The prognostic factors of myelopathy are not fully known, but sphincter dysfunction, magnetic resonance changes, gray matter involvement (flabbiness and hyporeflexia) and initial severity with paraplegia are cited as poor prognostic factors. (COSTALLAT, 2017)

Therapy instituted up to a maximum of two weeks after an episode of myelopathy is a better prognostic factor. In short, TM in SLE is very rare but very serious. It can be the first manifestation of the disease or occur after many years of SLE or even precede the disease. Although rare, it has high morbidity and mortality and can be present regardless of disease activity. It may be recurrent and therefore maintenance immunosuppressive therapy is recommended to prevent further episodes. MRI is essential for the diagnosis, but it may be normal in the very early stages. (APENZELLER, 2016).

CASE REPORT

F.C.L.O., female, 17 years old, with a clinical picture of diffuse arthralgia, fever, difficulty walking and urinary retention, sought medical assistance at the Emergency Care Unit. Diagnosed with cystitis, she was discharged and continued the treatment at home

At home, he progressed to the absence of walking associated with emesis, psychosis and arthralgia. She again sought medical assistance, this time being referred to a High Complexity Hospital where she was diagnosed with SLE and Transverse Myelitis. Presents in REG, LOT, Cushingoid fascies, eupneic, hydrated, pale (+/4), acyanotic, anicteric. The patient showed signs of spinal cord injury with paresthesias in the upper limbs, paraplegia (sensory level T10) and psychosis with sudden onset within days. Currently patient with sensory level T10 paraplegia (walks with the aid of a wheelchair), lower limb atrophy, tremors at rest, upper limb movement, spontaneous diuresis.

GOAL

To report the case of a young patient diagnosed with SLE, who opened with urinary infection and transverse myelitis, describe her clinical, laboratory, imaging findings, treatment and evolution, highlighting the importance of early diagnosis, recognition of its various interfaces and emergency intervention.

METHODS

To carry out this study, data from the medical records, interviews with the patient and family, photographic records of the diagnostic methods to which the patient was submitted and a literature review were analyzed with a search in the Scielo, Medline and Lilacs databases about the subject.

Anti-Nuclear Antibodies (FAN).....: Reagent
(Serum) reference value: Non-reactive

STANDARD.....: Mixed nuclear fine speckled type and cytoplasmic fine speckled dense type.

TITLE.....: Up to 1:640

CORE.....: Reagent
NUCLEOLUS.....: Non-reactive
CYTOPLASM.....: Reagent
MITOTIC APPARATUS.....: Non-reactive
CHROMOSOMAL METAPHASE PLATE.....: Negative

Method: Indirect immunofluorescence in human epithelial cells (HEP-2)

Note: This report follows the guidelines of the IV Brazilian Consensus for researching autoantibodies in HEp-2 cells(**Rev Bras Reumatol**. 54(1) :p.44-50,2013.)

Released on 01/30/2019 at 5:50 pm by KELLY BASTOS DA SILVA RAMOS – CRBM MA: 08288 Date and time of collection: 01/26/2019 15:41 (MC)

Anti-Native DNA Auto Antibody.....: Reagent up to 1: 280

(Serum) method: indirect immunofluorescence using antigen from Crithidia Luciliae

Reference Value: Non-Reagent

Note 1: Initial dilution 1:10.

Note 2: Result of auto-antibody anti-native DNA reagent only in the 1:10 dilution must, at the physician's discretion, be confirmed in a new sample.

Released on 01/30/2019 at 5:50 pm by KELLY BASTOS DA SILVA RAMOS – CRBM MA: 08288 Date and time of collection: 01/26/2019 15:41 (MC)

DIAGNOSIS

Clinical Examination: she was in regular general condition (REG), oriented, pale (+/4), hydrated, acyanotic, anicteric, lucid, eupneic, pain on palpation in joints, hair loss, fatigue, urinary retention, fever, loss of muscle strength in upper limbs and paraplegia and atrophy of lower limbs

Laboratory: C3: 15.2; C4: 3.20; Urine culture: Pseudomonas aeruginosa; ANA: reagent 1: 640;

CONCLUSIONS

The reported case and the studied publications reinforce the emergency character and about the identification of predisposing factors, clinical symptoms, imaging and laboratory tests for early recognition of SLE. Although rare, myelitis causes high morbidity and mortality. Some deaths during an episode of myelopathy, due to septicemia during or after immunosuppressive therapy have been observed in studies.

REFERENCES

Costallat, B.L.; Ferreira, D.M.; Costallat, L.T.L.; Appenzeller, S., **Mielopatia no lúpus eritematoso sistêmico: achados clínicos, laboratoriais, radiológicos e evolutivos em uma coorte de 1.193 pacientes**, P. 248-250, 2016.

Sato, E.I, Silva, N.A, Brenol, J.C.T, Santiago, M.B., Szaiubok, J.C.M., Rachid-Filho, A., Barros, Rui Toledo, Vasconcelos M. **Lupus eritematoso sistemico: tratamento do acometimento sistemico** , 2004

Simeon-aznar, C. P.; Tolosa-vilella, C., Cuenca-luque, R.; Jordana-comajuncosa, R.; Ordi-ros, J.; Bosch-gil,J. A.; **Transverse Myelitis In Systemic Lupus Erythematosus: Two Cases With Magnetic Resonance Imaging,** *Rheumatology*, Volume 31, Issue 8, August 1992, Pages 555–558.