

POST-HSV ANTI-NMDA AUTOIMMUNE ENCEPHALITIS: A CASE REPORT.

Stefania Angelocola* , C. Rinaldi* , M. Acciarri* , P. Di Bella* , L. Provinciali* F. Logullo**

Department of Experimental and Clinical Medicine - Marche Polytechnic University–Ancona*
Department of Neurology - Provincial General Hospital – Macerata **



INTRODUCTION

Anti-NMDA encephalitis is a neurological disease caused by antibodies against NMDA receptors; it may have a **paraneoplastic pathogenesis**: the most frequently related cancer is ovarian teratoma. Sometimes it may result from a **response of the immune system against an infection**, like a primary HSV encephalitis. The main clinical manifestations are: prodromal flu-like symptoms followed by behavioral/psychiatric disorders, language and memory impairment, epileptic seizures, autonomic dysfunction and central hypoventilation.

CASE REPORT

-64-year-old Italian woman, previously in good health.

-She experienced a first **generalized tonic-clonic seizure**. Later she developed **language disorders**, temporo-spatial **disorientation**, **memory loss** and **progressive impairment of consciousness**.

-Brain MRI: **left temporo-insular signal alteration with contrast enhancement**.

-The diagnosis of herpetic encephalitis was made and the patient was treated with intravenous acyclovir, steroids, and anti-epileptic drugs. During the following weeks, she experienced a **progressive improvement** in her clinical manifestations, with the **persistence of mild speech disorders**.

-After about four weeks, she underwent a **further deterioration of language and cognitive dysfunctions**; Cerebrospinal fluid showed an increase in proteins, in Link and Tourtelotte index and the presence of oligoclonal bands; virological researches were negative.

The hypothesis of an autoimmune encephalitis was formulated. Cancer screening was negative. While waiting for the result of the antibodies related to autoimmune encephalitis, the patient was treated with intravenous immunoglobulins and steroids. Finally, **anti-NMDAR antibodies in serum tested positive**.

-She underwent **six monthly cycles of intravenous Ig**. Then she was treated with **azathioprine**, which was suspended due to liver toxicity. Currently she is being treated with **prednisone 5 mg/day on alternate days**, and **methotrexate 10 mg/week**.

She no longer had epileptic seizures. Now she presents a mild fluent aphasia, a frontal syndrome and short-term memory deficits.

The set of clinical manifestations, the response to immunological therapy, the detection of anti-NMDA antibodies confirm the diagnosis of autoimmune encephalitis.

DISCUSSION AND CONCLUSIONS: this case report allows us to highlight the fact that **post-HSV encephalitis relapses may frequently be immune-mediated rather than a viral reactivation**.

Anti-NMDA antibodies are a common finding, and immunotherapy may be beneficial.

REFERENCES:

1) Sutcu M et al - "Role of autoantibodies to N-Methyl-D-Aspartate (NMDA) receptor in relapsing herpes simplex encephalitis: a retrospective, one-center experience" – Journal of Child Neurology – 2016 Mar – 31(3): 345-50

2) Hacoen Y et al - "N-methyl-D-aspartate receptor antibodies in post-herpes Simplex virus encephalitis neurological relapse" - Movement Disorders – 2014 Jan - 29(1): 90-6

