Cerebrospinal Liquid findings in mexican patients with anti-NMDA encephalitis

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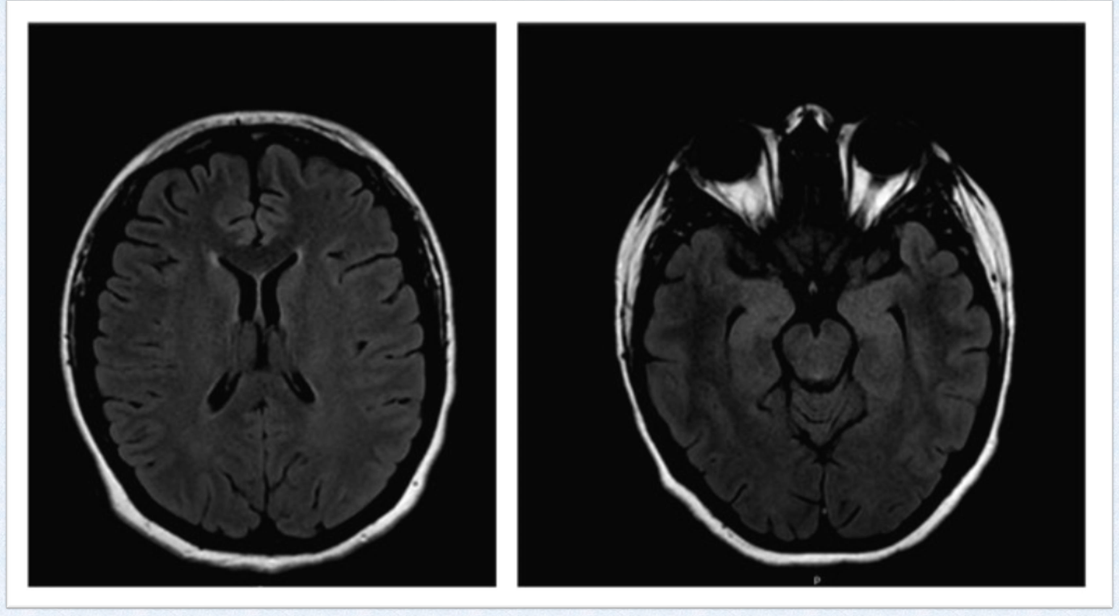
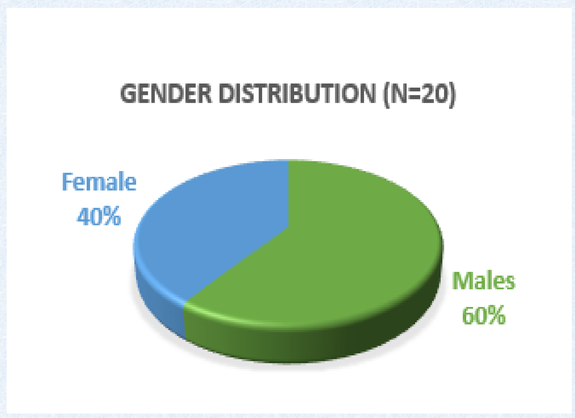


Introduction: Anti-NMDA autoimmune encephalitis is an emerging disease in México, with quite difficult in the diagnosis, its clinical characteristic includes, neuropsychiatric manifestations (psychosis, mania, delusions and hallucinations) and neurological (seizures, abnormal movements, catatonia and diskinesia). In Mexico, the difficult determination of Anti-NMDA antibodies has made us search for another alternatives as early biomarkers that may support the diagnosis in order to offer an opportune treatment to our patients.

According to Dalmau there are two forms of anti-NMDA encephalitis a) paraneoplasic and non paraneoplasic. The autoantibody binds to GLuR1 subunit of NMDA receptor leading to its internalization and a reversible synapsis failure, the participation of humoral immunology have been demonstrated in some experiments, with a low participation of T CD 8+ lymphocytes, and no evidence of complement system participation.

There are few descriptions about the cerebrospinal fluid (CFS) characteristics in Anti-NMDA encephalitis, the principal abnormalities founded were pleocytosis and increased protein concentrations.

Methods: We made a ambispective study with revision of medical records of patients who fullfilled criteria diagnosis of anti-NMDA autoinmune encephalitis according with Graus 2016 and were clasified as non paraneoplasic at the moment, and whitout autoinmune sistemic disease overlaped nor cronic degenerative diseases (high blood presure, diabetes mellitus type 2, etc). We searched for the inicial report of CSF; and the cytologic and cytochemical analysis, also oligoclonal bands.



Results: We found a 1.5:1 female/male relation in our sample, 40% of them were female and 60% were male. We found 28.85 Cel/µl as media determination in total cell counts, also 34.65 mg/dL media in protein determination. There were no abnormalities in glucose nor Lactate determinations. Oligoclonal bands were present in two patients that represent 10% of sample.

CSF	Units	Reference data	media	Standar Deviation
Total Cells	Cel/µl	<5 Cel/µl	28.85 (0-119)	34.201
Total proteins	mg/L	<50 mg/dl	34.65 (0-63)	15.789
Glucose	mg/dl	60 mg/dl	60.6 (42-93)	13.108
lactate	m g/dl	<20 mg/dl	1.50 (0-2)	0.889

CSL	Units	Reference data	media	Standard Deviation
OCB	Bands number	+ or -	0.85 (0-2)	.875

Conclusion: Our study confirms data reported in universal literature, we did not found any study in mexican pupulation. According to the neuroimmunology of this disease, a low intervention of cellular immunology should mean low number of cells and incresed intratecal immunoglobulins, neverthless we found a incresed cell count and low presence of proteins.
These data suggest that the first immunological process involved is the cell repsonse. It is important to notice that it has been published that the first CFS is not always abnormal, so, the second one is very important in the analysis.
We could make another study including flux cytometry to distinguish the limphocytes subpopulations which could be related with the immunological process in Autoimmune encephalitis.

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