


# Zpráva o účasti na EAN Congress 2023

Aktivně jsem se účastnila European Academy of Neurology Congress 1-4.7.2023 v Budapešti. Na kongresu jsem byla od prvních přednášek v sobotu 1.7. až do konce programu 4.7.


Pro zaměření mého výzkumu (Autoimunitní encefalitidy) bylo vytvořeno několik tematických sekcí, kterých jsem se účastnila. Mimo to jsem se účastnila mnoha přednášek rozvíjejících moje klinické znalosti (např. na téma Poruchy hybnosti, Funkční neurologické poruchy, atp.).

Poster byl prezentován jako ePoster Virtual, tedy nebyl mu vyhrazený čas na prezentaci v průběhu kongresu, ale byl po celou dobu trvání kongresu a i nadále je dostupný k nahlédnutí a k poslechu dvouminutové narace k posteru online, která nahrazuje prezentaci na místě.



## Antibody-negative autoimmune encephalitis: A single-center retrospective analysis.

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**INTRODUCTION**

Autoimmune encephalitis (AE) refers to a heterogeneous group of inflammatory CNS diseases. Subgroups with specified neuronal or glial autoantibodies are more homogeneous in presentation, trigger factors, outcome and response to therapy. However, a considerable fraction of patients has AE features but does not harbor detectable autoantibodies and is referred to as antibody-negative AE.

Only two larger series were focused on antibody-negative AE – in one by Graus et al<sup>1</sup> 12 definite limbic encephalitis (LE) patients were described, in another by Lee et al<sup>2</sup> 147 antibody-negative patients (probable AE, definite LE and acute disseminated encephalomyelitis) were described.

Our aim was to describe clinical features, trigger factors, treatments and outcome of a cohort of comprehensively tested antibody-negative AE patients.

**METHODS**

This retrospective monocentric study recruited adult patients whose serum and/or CSF was sent to our tertiary center for neural antibody testing between 2011 and 2020 and who entered the diagnostic algorithm of possible antibody-negative AE.

Patients fulfilled the following inclusion criteria:

- (1) probable antibody-negative AE or definite autoimmune LE according to diagnostic criteria and EEG;
- (2) had available data on brain MRI, CSF analysis and EEG;
- (3) had stored serum and/or CSF samples.

All samples of possible antibody-negative AE patients were reanalyzed using a comprehensive combination of cell-based and tissue-based assays.

**SUMMARY**

- 62 patients had antibody-positive AE
  - 57 with routine testing
  - 5 with comprehensive testing
- 10 patients had antibody-negative AE
  - 6 probable antibody-negative AE
  - 4 definite autoimmune LE

Compared to previous cohorts, our antibody-negative patients:

- were older (median age 60<sup>3</sup>)
- had less tumors (10% of total, 25% of LE)<sup>3</sup>
- were a smaller proportion of all AE patients (14%)<sup>3</sup>
- had similar outcome (50% favourable<sup>3</sup>) and mortality (30%)<sup>3</sup>

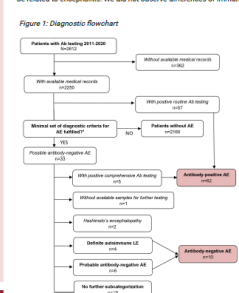
**ACKNOWLEDGEMENT AND CONFLICTS OF INTEREST**

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**RESULTS**

Of 2250 patients tested, 57 patients had antibody-positive AE by routine testing and 23 patients (1.3%) entered the diagnostic algorithm as possible antibody-negative AE. Five were found to have antibodies by comprehensive testing, six fulfilled the criteria of probable antibody-negative AE (median age 67 [range 42 – 87] years). Four fulfilled the criteria of definite autoimmune LE (median age 45.5 years, range 27 – 65). Thus 10/72 (14%) of the cohort of AE patients were antibody-negative. Oncological screening revealed malignancies in 1 of 8 screened patients. Until end of follow-up (median 18 months, range 0 – 70), none of the patients received an alternative diagnosis. 80% (8/10) patients received immunotherapy including corticosteroids, 6/10 (60%) received rituximab, acyclovir, cyclophosphamide, plasma exchange or intravenous immunoglobulins. Five (50%) patients improved, 1 (10%) stabilized, 1 (10%) worsened and 3 (30%) died. 50% of patients had a favourable outcome (mRS 0-2). All deaths were considered to be related to encephalitis. We did not observe differences of immunotherapy-treated patients in likelihood of improvement with or without non-steroidal immunotherapy (with 2/6, without 1/2).

**Figure 1: Diagnostic flowchart**



**Table 1: Clinical characteristics of patients with definite autoimmune LE**

No.	Sex	Age (years)	Onset	MRSA	CSF results	Antibodies (by comprehensive testing)	Autoantibodies	Time to diagnosis (months)	Time to relapse (months)	Time to death (months)	Time to recovery (months)	mRS at follow-up
1	F	45	Acute onset of memory impairment, personality changes, and visual hallucinations	+	CSF: normal	+	Anti-NMDAR	0	0	0	0	0
2	F	45	Acute onset of memory impairment, personality changes, and visual hallucinations	+	CSF: normal	+	Anti-NMDAR	0	0	0	0	0
3	F	45	Acute onset of memory impairment, personality changes, and visual hallucinations	+	CSF: normal	+	Anti-NMDAR	0	0	0	0	0
4	F	45	Acute onset of memory impairment, personality changes, and visual hallucinations	+	CSF: normal	+	Anti-NMDAR	0	0	0	0	0

**Table 2: Clinical characteristics of patients with probable antibody-negative AE**

No.	Sex	Age (years)	Onset	MRSA	CSF results	Antibodies (by comprehensive testing)	Autoantibodies	Time to diagnosis (months)	Time to relapse (months)	Time to death (months)	Time to recovery (months)	mRS at follow-up
1	F	60	Acute onset of memory impairment, personality changes, and visual hallucinations	+	CSF: normal	-	None	0	0	0	0	0
2	F	60	Acute onset of memory impairment, personality changes, and visual hallucinations	+	CSF: normal	-	None	0	0	0	0	0
3	F	60	Acute onset of memory impairment, personality changes, and visual hallucinations	+	CSF: normal	-	None	0	0	0	0	0
4	F	60	Acute onset of memory impairment, personality changes, and visual hallucinations	+	CSF: normal	-	None	0	0	0	0	0

**Figure 2: Symptoms in definite autoimmune LE**

**Figure 3: Symptoms in probable antibody-negative AE**

**CONCLUSION**

Antibody-negative AE is a heterogeneous condition with a variable prognosis which should only be diagnosed after comprehensive testing. This group forms a small, but considerable portion of all AE patients. These patients are mostly older, they often benefit from immunotherapy and half of them has a favourable outcome. Associated malignancies were less common in our cohort, but mortality was still considerable.

**REFERENCES**

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Děkuji za podporu a možnost účastnit se této akce.

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