NEURONAL SURFACE ANTIBODIES: CLINICAL FEATURES

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Purpose: Neuronal surface antibodies (NSAbs) are causal factors in autoimmune encephalitis, especially NMDAR or limbic encephalitis (LE). Identifying common clinical features of the disease leading to diagnosis is important given that it may be successfully treated with immunosuppressive therapy.

Methods: We assessed retrospectively clinical features of nine patients with NSAbs-associated encephalitis (anti-LGI1, anti-caspr2, anti-AMPA1, anti-AMPA2, anti-GABABR) that were followed up in our department between Nov 2011 and Aug 2013. Patients with anti-NMDAR antibodies were not included. Indirect immunofluorescence kits with HEK293 transfected cells (Autoimmune encephalitis mosaic 1, Euroimmun AG) were used for antibody detection in serum and cerebrospinal fluid.

Results: Most of the patients with NSAbs had at least one clinical symptom typical for LE (epileptic seizures, memory impairment, psychiatric symptoms) with different level of expression. From four patients with anti-LG1 antibodies two were men that presented with symptoms of LE and two were women that presented with short-term memory impairment and de novo epileptic seizures. Screening of tumours demonstrated suspect tumor in thyroid gland in one patient. Patients with anti-caspr2 positivity (n=4) were males. Three presented with temporal lobe epilepsy (TLE), one with subacute cerebellar syndrome. One of them had positivity of anti-Hu and anti-AMPA 1. Another anti-AMPA1 positive patient was woman with subacute cognitive impairment and TLE – the etiology in this patient was paraneoplastic with proved small cell lung carcinoma.

Conclusion: Clinical signs in our series were heterogeneous. Anti-caspr2 antibodies were associated with (refractory) TLE - clinical picture includes male sex, bitemporal involvement and neuropsychological deficit.