Limbic Encephalitis: General Aspects of Pathophysiology, Symptoms and Therapeutic Options

Sven G. Meuth

University Hospital Münster, Neurology Clinic and Institute of Translational Neurology, Albert-Schweitzer-Campus 1, 48149 Münster, Germany

Abstract

Patients with limbic encephalitis usually present with new onset mesial temporal lobe seizures, progressive memory disturbance, and a variety of other behavioral, emotional, and cognitive changes. Autoimmune inflammation of the limbic gray matter structures of the human brain has recently been identified as major cause of mesial temporal lobe epilepsy with interictal temporal epileptiform activity and slowing of the electroencephalogram, progressive memory disturbances, as well as a variety of other behavioral, emotional, and cognitive changes. Magnetic resonance imaging exhibits volume and signal changes of the amygdala and hippocampus, and specific anti-neuronal antibodies binding to either intracellular or plasma membrane neuronal antigens can be detected in serum and cerebrospinal fluid. Therefore, a deeper understanding of the underlying pathophysiological mechanisms is critically required to develop targeted therapies.

Keywords: Patient, Autoimmune Inflammation, Plasma

*Corresponding Author: Sven G. Meuth
  E-mail: sven.meuth@ukmuenster.de