

Sign in to NCBI

PubMed.gov
US National Library of Medicine
National Institutes of Health

PubMed

Search

Advanced

Help

Abstract

Send to:



FULL-TEXT ARTICLE

J Neurol. 2013 Nov;260(11):2744-53. doi: 10.1007/s00415-013-7048-2. Epub 2013 Jul 31.**Cerebral FDG-PET and MRI findings in autoimmune limbic encephalitis: correlation with autoantibody types.**Baumgartner A¹, Rauer S, Mader I, Meyer PT.**Author information**¹Department of Neurology, Albert Ludwigs University Freiburg, Breisacher Str. 64, 79106, Freiburg, Germany, annette.baumgartner@uniklinik-freiburg.de.**Abstract**

In parallel to the detection of new neuronal autoantibodies, the diagnosis of non-infectious limbic encephalitis has risen. Given that cerebral imaging studies show highly variable results, the present retrospective study investigates imaging findings in association with autoantibody type. An institutional database search identified 18 patients with non-infectious limbic encephalitis who had undergone [18F] fluorodeoxyglucose positron emission tomography (FDG-PET). Sixteen of these patients also underwent magnetic resonance imaging (MRI). MRI and FDG-PET images were categorized as follows: normal (0); mesiotemporal abnormality (1); normal mesiotemporal finding but otherwise abnormal (2). Neuronal autoantibodies were determined in serum and/or CSF. Autoantibodies were grouped according to the cellular localization of their target antigen: antibodies against surface antibodies (i.e., VGKC, NMDAR): 9; antibodies against intracellular antigens (i.e., Hu, Ri, GAD): 4; no autoantibodies: 5. The fraction of abnormal scans was lower for MRI (10/16) than for FDG-PET (14/18). There was a significant association between PET findings and autoantibody type: All patients with autoantibodies against intracellular antigens showed mesiotemporal findings on FDG-PET. In turn, only 2/9 patients with autoantibodies against surface antigens displayed mesiotemporal hypermetabolism. In the remaining seven patients, four scans were rated as normal and three only showed findings outside the mesiotemporal region. A similar association was found using MRI, although this did not reach statistical significance. Autoantibody type was found to be associated with FDG-PET and, to a lesser extent, with MRI imaging results. Our observations may explain the heterogeneity of imaging data in LE and based on in vivo findings support the assumption of different patho mechanisms underlying LE due to antibodies against surface and intracellular antigens, respectively.

PMID: 23900756 [PubMed - indexed for MEDLINE]

**Publication Types, MeSH Terms, Substances, Supplementary Concepts****LinkOut - more resources****PubMed Commons**

0 comments

[PubMed Commons home](#)[How to join PubMed Commons](#)**Save items**[Add to Favorites](#)**Related citations in PubMed**

Immunopathology of autoantibody-assoc [Brain. 2012]

Antibodies to glutamic acid decarboxylas [Ann Neurol. 2010]

Treatment-responsive limbic encephalitis identifi [Brain. 2005]

Review Diagnostic value of CSF findings in a [Seizure. 2013]

Review Neuropsychiatric autoi [Cogn Behav Neurol. 2013]

[See reviews...](#)[See all...](#)**Cited by 2 PubMed Central articles**

Marked improvement of anti-N-methyl-D- [Exp Ther Med. 2014]

Anti-leucine rich glioma inactivated 1 [BMC Neurol. 2014]

Related information[Related Citations](#)[Articles frequently viewed together](#)[MedGen](#)[PubChem Compound \(MeSH Keyword\)](#)[Cited in PMC](#)**Recent Activity**[Turn Off](#) [Clear](#)[Cerebral FDG-PET and MRI findings in autoir PubMed](#)[Uncommon 18F-FDG-PET/CT findings in p; PubMed](#)

 [limbic encephalitis \(1151\)](#)
PubMed

-  [Paraneoplastic Syndromes: An Approach to Diagnosis](#)
-  [Paraneoplastic syndromes: an approach to diagno](#) PubMed

[See more...](#)

You are here: NCBI > Literature > PubMed

[Write to the Help Desk](#)

GETTING STARTED	RESOURCES	POPULAR	FEATURED	NCBI INFORMATION
NCBI Education	Chemicals & Bioassays	PubMed	Genetic Testing Registry	About NCBI
NCBI Help Manual	Data & Software	Bookshelf	PubMed Health	Research at NCBI
NCBI Handbook	DNA & RNA	PubMed Central	GenBank	NCBI News
Training & Tutorials	Domains & Structures	PubMed Health	Reference Sequences	NCBI FTP Site
	Genes & Expression	BLAST	Gene Expression Omnibus	NCBI on Facebook
	Genetics & Medicine	Nucleotide	Map Viewer	NCBI on Twitter
	Genomes & Maps	Genome	Human Genome	NCBI on YouTube
	Homology	SNP	Mouse Genome	
	Literature	Gene	Influenza Virus	
	Proteins	Protein	Primer-BLAST	
	Sequence Analysis	PubChem	Sequence Read Archive	
	Taxonomy			
	Training & Tutorials			
	Variation			

[Copyright](#) | [Disclaimer](#) | [Privacy](#) | [Browsers](#) | [Accessibility](#) | [Contact](#)

National Center for Biotechnology Information, U.S. National Library of Medicine
8600 Rockville Pike, Bethesda MD, 20894 USA

