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doi: 10.1111/epi.14192; Published online: 11 May 2018

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Daniel W. M. Acker, Irene Wong, Mihwa Kang, and Suzanne Paradis

doi: 10.1111/epi.14429; Published online: 25 May 2018

BRIEF COMMUNICATIONS

Online only: The following articles can be accessed in the electronic version of this issue at onlinelibrary.wiley.com

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The immediate and short-term effects of bilateral intrahippocampal depth electrodes on verbal memory

Christoph Helmstaedter, Gerrit H. Gielen, and Juri-Alexander Witt

doi: 10.1111/epi.14019; Published online: 07 February 2018

In contrast to previous studies Ljung et al. provide evidence of lasting consequences of bilateral intrahippocampal depth electrodes for verbal memory in patients who were not operated or operated in the right temporal lobe. In accordance and supplementary to this we report acute effects of depth electrodes on memory directly after explantation. These effects can be considerable. However, patients with right temporal resections largely recover from this impairment when retested after surgery. Such recovery is not observed after left temporal resections. Surgery has additional effects on memory. Invasive stereotactic approaches should be monitored to increase the safety for the patients.

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Increased cardiac stiffness is associated with autonomic dysfunction in patients with temporal lobe epilepsy

Guilherme L. Fialho, Peter Wolf, Roger Walz, and Katia Lin

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Autonomic dysfunction (AD) is linked to sudden death, arrhythmia and possibly cardiac fibrosis. We evaluated cardiac stiffness by echocardiography and its association with clinical, structural and autonomic variables in people with epilepsy (PWE). Treadmill test and echocardiogram from thirty PWE were compared to controls. PWE had higher left ventricle stiffness, left ventricle filling pressure and left atrial volume as well as markers of AD. AD explained 52% of stiffness and carbamazepine treatment and polytherapy with antiepileptic drugs (AED) explained, additionally, 6% each. Stiffness is increased in young PWE and is related to AD and to a lesser extent, with AEDs.

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Serum serotonin levels in patients with epileptic seizures

Arun Murugesan, M. R. Sandhya Rani, Johnson Hampson, Bilal Zonjy, Nuria Lacuey, Carl L. Faingold, Daniel Friedman, Orrin Devinsky, Rup K. Sainju, Stephan Schuele, Beate Diehl, Maromi Nei, Ronald M. Harper, Lisa M. Bateman, George Richerson, and Samden D. Lhatoo

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Profound cardiovascular and/or respiratory dysfunction occur pre-terminally in sudden unexpected death in epilepsy (SUDEP). The neurotransmitter serotonin, may mediate important respiratory inputs. We investigated epileptic seizure-induced changes in serum serotonin, and any potential implications for SUDEP. Forty-one patients were pooled into two groups based on seizure type (generalized convulsive and focal). Post-ictal serotonin levels were significantly higher after generalized convulsive seizures, compared to interictal levels ($p=0.002$), but not focal seizures ($p=0.941$). Tonic phase duration and post-ictal EEG suppression (implicated in SUDEP) were inversely associated with post-ictal and inter-ictal serum serotonin levels respectively, suggesting possible implications for SUDEP patho-phenomenology.

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