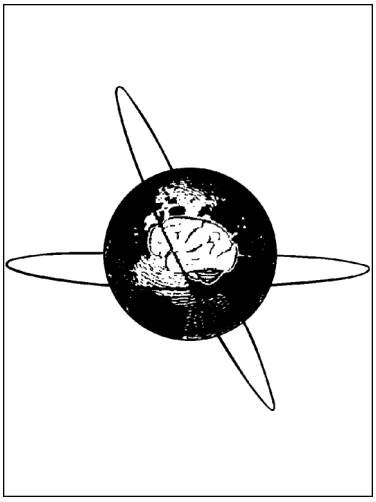

Clinical practice highlights from CLINPH

clinical Practice Highlights in *Clinical Neurophysiology* in 2015 (July–December)

David Burke

PII: S2467-981X(16)30020-8
DOI: http://dx.doi.org/10.1016/j.cnp.2016.12.001
Reference: CNP 19

To appear in: *Clinical Neurophysiology Practice*

Received Date: 20 November 2016
Accepted Date: 2 December 2016

Please cite this article as: D. Burke, clinical Practice Highlights in *Clinical Neurophysiology* in 2015 (July–December), *Clinical Neurophysiology Practice* (2016), doi: http://dx.doi.org/10.1016/j.cnp.2016.12.001

CLINICAL PRACTICE HIGHLIGHTS IN *CLINICAL NEUROPHYSIOLOGY* IN 2015 (JULY–DECEMBER)

This compilation completes our review of clinical practice issues raised in papers published in *Clinical Neurophysiology* in 2015. The selected studies examine clinical utility and the implications for practice, and provide insights relevant to the scope of *Clinical Neurophysiology Practice*. The Abstracts and full papers can be accessed by clicking on the hyperlinks in the Reference list.

Again the selection is personal, and some appropriate papers have undoubtedly been overlooked, for which I apologise. The Editors would welcome feedback from readers on the value of this compilation, and particularly feedback about papers that should have been included. The present compilation covers issues 7–12 of 2015.

David Burke

CEREBRAL FUNCTION

1. Identification of seizure onset zone and preictal state based on characteristics of high frequency oscillations.

Editorial comments on clinical importance: This paper examined intracranial recordings from 33 epileptic patients using an automated HFO detection method, and report that HFOs may occur in all recordings, including those outside the seizure-onset zone. However HFOs are more frequent in that zone (and increase in frequency with the transition from interictal to ictal) and have slightly different characteristics (which also change with that transition). The authors comment "that large numbers of HFO are required to identify the SOZ is a limitation to the utility of HFO as to be used as a tool to mark the seizure onset location in individual patients. However the mere existence of these differences suggests that the pathological nature of these HFO is true even if the difference between normal and pathological HFO is less than anticipated."

Malinowska U, Bergey GK, Harezlak J, Jouny CC. Identification of seizure onset zone and preictal state based on characteristics of high frequency oscillations. Clin Neurophysiol 2015; 126: 1505-13.
DOI: http://dx.doi.org/10.1016/j.clinph.2014.11.007

2. Electroencephalography for diagnosis and prognosis of acute encephalitis.

Editorial comments on clinical importance: EEGs were performed because of an altered level of consciousness and/or suspected seizure in 76 of 103 patients with encephalitis within a median of 1 day after admission. The clinical features of patients with herpes simplex encephalitis did not differ from those with other causes, but the EEG showed periodic discharges and focal slowing significantly more often. There were no significant differences in EEG characteristics, but background activity was more often non-reactive in patients with an infectious aetiology. "Clinical predictors of mortality included coma at admission, global cerebral edema and mechanical ventilation". A normal EEG predicted survival, independent of the clinical predictors.

Sutter R, Kaplan PW, Cervenka MC, Thakur KT, Asemota AO, Venkatesan A, et al. Electroencephalography for diagnosis and prognosis of acute encephalitis. Clin Neurophysiol 2015; 126: 1524-31
DOI: http://dx.doi.org/10.1016/j.clinph.2014.11.006

3. The P300 in middle cerebral artery strokes or hemorrhages: Outcome predictions and source localization.