Seizure Semiology: First Step To Classification

*December 8, 2013*

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Disclosure

Name of Commercial Interest
Eisai, Ltd
Lundbeck, Inc

Type of Financial Relationship
Consultant

None relevant to this presentation
Learning Objectives

• Understand the importance of semiological classification to seizure & epilepsy classifications

• Be aware of the Semiological Seizure Classification

• Be aware of the ‘Glossary’ of terminology used to describe seizures

American Epilepsy Society  |  2013 Annual Meeting
Assertion

• The first step in the diagnosis & management of a possible seizure is accurate description of the event.

• This translates into “classification”
Seizure Classifications

• Classification of Seizures, ILAE 1981- partial, generalized, both
  – Semiology + EEG

• Semiological Seizure Classification, 1998
  – Semiology only

• Glossary of Descriptive Terminology for Ictal Semiology, 2001
• **Auras**- ictal manifestations having sensory, psychosensory, and experiential symptoms.

• **Autonomic**- the main ictal manifestations are objectively documented autonomic alterations.

• **Dialeptic**- main ictal manifestations an alteration of consciousness that is independent of ictal EEG manifestations.
Motor - motor symptoms subclassified as simple or complex. Simple motor seizures are characterized by simple, unnatural movements that can be elicited by electrical stimulation of the primary and supplementary motor area (myoclonic, tonic, clonic and tonic-clonic, versive). Complex motor seizures are characterized by complex motor movements that resemble natural movements but that occur in an inappropriate setting ("automatisms").

Special - characterized by "negative" features (atonic, astatic, hypomotor, akinetic, and aphasic seizures).
Complex Motor

– a. Hypermotor seizures are seizures in which the main manifestations consist of complex movements involving the proximal segments of the limbs and trunk. This results in large movements that appear "violent" when they occur at high speeds.

Warren T. Blume—Chair, Hans O. Lüders, Eli Mizrahi, Carlo Tassinari, Walter van Emde Boas, and Jerome Engel, Jr., Ex-officio

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Blume et al., Epilepsy 49:1212-1219, 2001
“Glossary of Descriptive Terminology for Ictal Semiology: Report of ILAE Task Force...”

• **1.0 SEMIOLOGY**
  – That branch of linguistics that deals with signs and symptoms
“Glossary of Descriptive Terminology for Ictal Semiology: Report of ILAE Task Force...”

• **2.3 DYSCOGNITIVE**

  – The term describes events in which (1) disturbance of cognition is the predominant or most apparent feature, and (2a) two or more of the following components are involved or (2b) involvement of such components remains undetermined.

**Components of cognition:**

- Perception
- Attention
- Emotion
- Memory
- Executive function

Blume et al., Epilepsia 49:1212-1219, 2001
1.2.1.5 Hyperkinetic

- Involves predominantly, proximal limbs or axial muscles, producing irregular sequential ballistic movements, such as pedaling, pelvic thrusting, thrashing, rocking movements
- Increase in rate of ongoing movements or inappropriately rapid performance of a movement

1.1.2.2.1 Jacksonian March

- Traditional term indicating spread of clonic movements through contiguous body parts unilaterally

Blume et al., Epilepsia 49:1212-1219, 2001
Semiological Classification of Case

• Dyscognitive (dialeptic)
• Motor
  – Hyperkinetic (complex- hypermotor)

• Note- there is no assumption regarding EEG or focality
Impact on Clinical Care and Practice

• Knowing the classification scheme that you intend to use is essential for care provider to communicate in a clear, consistent fashion

• The Semiological Seizure Classification provides an initial framework into which seizures can be classified based only upon appearance or report and not dependent upon EEG or neuroimaging

• The “Glossary...” contains precise definitions of terms used for description of ictal events based upon clinical observations