**THE DIAGNOSIS OF EPILEPSY IN PATIENTS WITH ONE SEIZURE? NO**

**Kristl Vonck**
*Department of Neurology, Reference Center for Refractory Epilepsy, Ghent University Hospital, Belgium*

An epileptic seizure is a transient occurrence of signs and/or symptoms due to abnormal excessive or synchronous neuronal activity in the brain. Epilepsy is a disorder of the brain characterized by an enduring predisposition to generate epileptic seizures and by the neurobiologic, cognitive, psychological, and social consequences of this condition. The definition of epilepsy requires the occurrence of at least one epileptic seizure. It assumes the presence of an enduring alteration in the brain that increases the likelihood of future seizures. To make a diagnosis of epilepsy after an initial seizure, the identification of risk factors reflective of this increased likelihood is required. Therefore it is a difficult term to use in everyday clinical practice as we are limited in our means to objectively identify significant signs of an enduring alteration in the brain. In some patients functional and anatomical technical investigations may help but in the majority of patients with a single first seizure these investigations will be normal and not helpful in deciding whether treatment should be initiated. Diagnosis of a clear symptomatic first seizure in patients with an identifiable brain disorder and therefore a high chance of a second seizure (eg. a brain tumor), will not cause major concern for any physcian's daily practice. Diagnosing epilepsy following a first single seizure in patients without hard evidence of functional or anatomic abnormalities and therefore an unpredictable risk of a second seizure is challenging. It would imply treatment initiation with no means of adequate follow-up of the effectiveness of this act and no guidance on when to stop treatment. In individual cases the potential risk of severely disrupting a patient's personal life due to a second seizure (eg. job loss, driver's licence issues) may support the strategy to treat anyway.