

THE YIELD OF NON-ELECTIVE INPATIENT VIDEO-EEG MONITORING IN ADULTS

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Background: Inpatient video-EEG monitoring (VEM) is used for the evaluation of patients with paroxysmal events of unknown nature and aids in the differentiation between seizures, psychogenic nonepileptic seizures and physiologic nonepileptic events. Most admissions to VEM are elective and are scheduled months ahead before the monitoring session.

Objective: To retrospectively evaluate the yield of non-elective VEM sessions.

Methods: We retrospectively reviewed the VEM recordings and medical records of all the patients admitted to our one-bed VEM unit from June 2007 to June 2015. A VEM session was diagnostic when a seizure, an event or previously unreported interictal epileptiform discharges were recorded.

Results: The study group included 304 adults aged 18 to 92 years (mean- 40.4±17.4 years), 181 (59%) women. The diagnostic yield of non-elective and elective VEM session was similar (66% and 69%, respectively). In non-elective VEM, fewer patients had known epilepsy ($p=0.0001$), session duration was shorter ($p=0.0001$), and seizures and interictal epileptiform discharges were recorded less frequently compared to elective VEM ($p=0.005$ and $p=0.0001$, respectively).

Conclusions: Non-elective VEM can provide useful information in patients admitted to the neurology department with recent neurological or behavioral events. A timely and correct diagnosis in these patients can potentially reduce unnecessary use of antiepileptic drugs in patients with psychogenic nonepileptic seizures and the morbidity and mortality associated with undiagnosed seizures.