

OLYMPIC CFM™ 6000

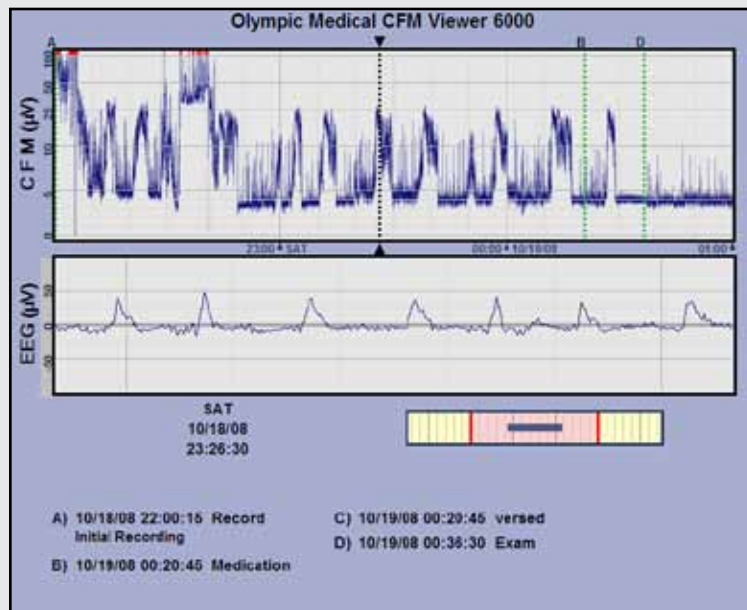
Infant aEEG Cerebral Function Monitor

Case Report: aEEG May Help Identify Apnea As Seizures South Bend, Indiana, USA

At midnight on a Saturday night, it may not be easy to access conventional EEG due to its limited availability. Amplitude integrated EEG (aEEG) may help identify and document the cause of apnea as seizures when conventional EEG is not always available. This case report shows how aEEG was valuable in making this determination.

A 39-week pregnant woman with a history of decreased fetal movement for one week prior to delivery was admitted. There was rupture of membranes 22 hours prior to delivery and non-particulate meconium stained fluid. Fetal monitoring was reassuring.

A female baby was delivered by Caesarean Section due to lack of progress. At birth the baby was flaccid with Apgar scores of 2⁰, 4⁵ and 6¹⁰. On the initial exam, the head circumference was 32 cm (<10th percentile), and her weight and length were slightly over the 50th percentile. She was intubated and suctioned but had minimal spontaneous respirations. She required bag/mask ventilation for 11 minutes after which respiratory effort was established. The baby was placed on hood O₂ and remained stable until 7 hours of age, when increasingly severe apnea developed prompting transfer to the NICU.



In the NICU, aEEG monitoring (Olympic CFM™ 6000, Natus Medical Incorporated) was started which revealed the presence of seizures. Seizures were controlled with phenobarbital. At day two of the NICU stay, an MRI was performed that showed bilateral infarcts with leukomalacia.

Without aEEG or access to conventional EEG due to the time of day in this case, the clinician may have been forced to treat empirically or to wait until apnea could be confirmed as seizures by conventional EEG. Amplitude Integrated EEG helped move treatment forward in this case when conventional EEG was not available.

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