IMPULSE MONITORING, INC.

CASE STUDY: Improving Patient Management and Quality Care Through Intraoperative Monitoring

Courtesy of R. O'Brien MD, FRCP, MBA

Reference 120706-07-019

HISTORY

72-year old man with past history of bilateral carotid stenosis, right Amarosis Fugax, pulmonary embolism and CAD with prior CABG and hypertension, and previous uneventful left CEA one-month prior.

MONITORING

Median SSEP and EEG

CHANGES

At baseline, the EEG was almost flat. The neurophyisiologist could not explain this and the surgeon, agitated, felt it was likely technical, and that the case might have to be cancelled. After brief trouble-shooting, the on-line neurologist advised that the problem was patient-based, not due to technical problems. The anesthesiologist then raised blood pressure by 10 Torr, which they had let drift downward, with an immediate improvement in EEG.

OUTCOME

Patient awoke without new neurological deficit.

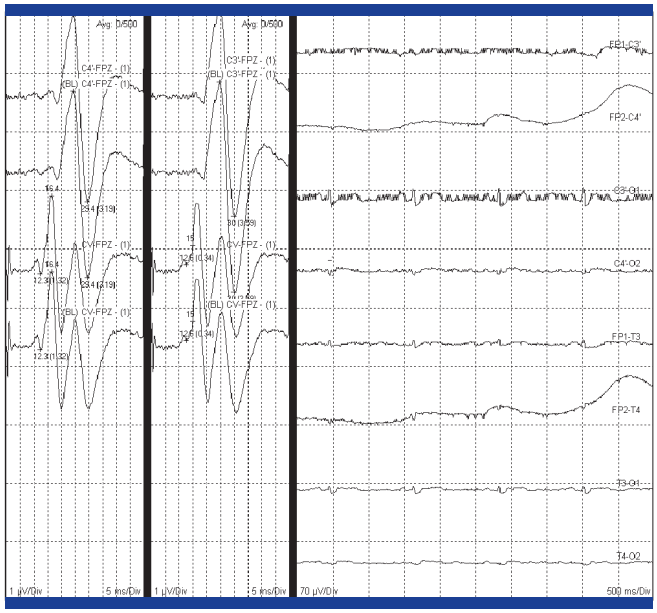
LIKELY OUTCOME WITHOUT MONITORING

If the case had been cancelled or delayed due to the EEG changes, the underlying cerebral ischemia causing the EEG changes may have been further prolonged leading to neurological injury.

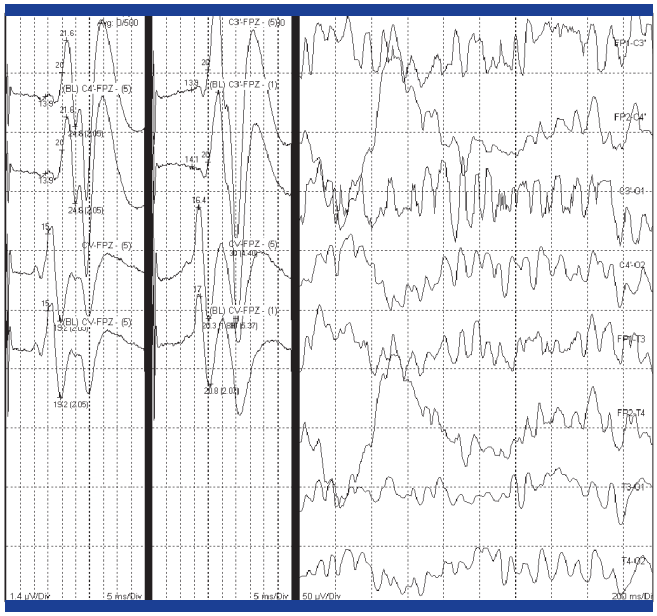
REFERENCES:

Anderson EM, Carney AL, Page L. Carotid and Vertebral Artery Surgery, EEG Monitoring, and the Operating Room, Advances in Neurology. Vol 30:Diagnosis and Treatment of Brain Ischemia, Raven Press 1981

Baseline



After BP raised



About Impulse Monitoring

Impulse Monitoring, Inc. (IMI) provides intraoperative neurophysiological monitoring (IONM) services to hospitals and other facilities for spinal, nerve and brain-related surgeries. IONM allows early detection of neurological compromise and identification of functional neural structures during surgery. The scope of IMI's service includes neurophysiologists who provide monitoring in the operating room, supported by dedicated real-time, remote physician monitoring.