

August 06-07, 2018
Prague, Czech Republic

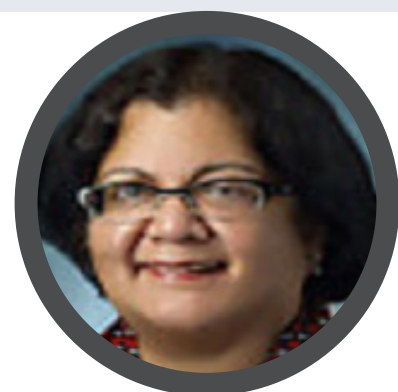
Punita Tripathi et al., J Univer Surg 2018, Volume: 6
DOI: 10.21767/2254-6758-C1-001

AWAKE CRANIOTOMY ANESTHESIA: A COMPARISON BETWEEN THE MONITORED ANESTHESIA CARE (MAC) VERSUS THE ASLEEP-AWAKE-ASLEEP (AAA) TECHNIQUE

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Introduction: Awake craniotomy with intraoperative brain mapping, allows for maximum tumor resection while monitoring neurological function and is used for lesions involving the eloquent areas of the brain, such as Broca's, Wernicke's, or the primary motor area. Common techniques are MAC, using an unprotected airway, or the AAA technique, using a partially or totally protected airway.

Method: A prospective data collection and retrospective data analysis was conducted on 81 patients who underwent an awake craniotomy for an eloquent brain lesion over a 9 year period. 50 underwent anesthesia with the MAC technique and 31 patients underwent the AAA technique by a single surgeon and a team of anesthesiologists. MAC technique's method has no set protocol for sedation, different medications for MAC based on the comfort level of anesthesiologist, requirements of the patient and whether the scalp block is working well. AAA technique's method uses Propofol was used for induction followed by laryngeal mask airway placement. Anesthesia was maintained with sevoflurane until the patient was spontaneously ventilating and asleep. A complete scalp block was performed in all patients. Infiltrative block is performed at the pinning site, incision site and after craniotomy around the nerves supplying the duramater. Bupivacaine or Ropivacaine 0.5% with 1:200,000 of epinephrine is usually used

Results: The MAC and AAA groups had similar pre-operative patient and tumor characteristics. Mean operative time was shorter in the MAC group (283.5 minutes vs. 313.3 minutes; P: 0.038). Hypertension was the most common intraoperative complication seen (8% in the MAC group vs. 9.7% in the AAA group; P: 0.794). Intraoperative seizure occurred at a rate of 4% in the MAC group and 3.2% in the AAA group (P: 0.858). Awake cases were converted to general anesthesia in no patients in the MAC group and in 1 patient (3.2%) in the AAA group (P: 0.201). No cases were aborted in either group. The mean hospital length of stay was 3.98 days in the MAC group and 3.84 days in the AAA group (P: 0.833).

Biography

Punita Tripathi was a practicing Cardiac Anesthesiologist at India's premier medical institute the All India Institute of Medical Sciences (AIIMS), New Delhi, before coming over to USA in 1996. There after she completed her Residency in Anesthesiology from Harvard Medical School, Beth Israel Deaconess Medical Center, Boston, MA in 2002. Since 2002 she is on Faculty at Johns Hopkins University, Baltimore, MD. For the past five years she has been Director of Neurosurgical Anesthesia at Johns Hopkins Bayview Medical Center and has been actively involved in writing protocols for Awake Craniotomy and Anesthesia for Neurosurgical cases. Her areas of interests are Neurosurgical Anesthesia, Thoracic Anesthesia and Obstetric Anesthesia. She has authored papers in reputable journals and written book chapters.

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