

### A026 Opioid-Free Total Awake Craniotomy and Cortical Mapping: Our Experience

Senthil Kumar,<sup>1</sup> Nishanth S.,<sup>2</sup> Suresh Babu,<sup>2</sup> Vishwaraj,<sup>2</sup> Vijay,<sup>2</sup> Giridharan,<sup>1</sup> Anbuselvi<sup>1</sup>

<sup>1</sup>Institute of Anaesthesia, SIMS Hospitals, Chennai, Tamil Nadu, India

<sup>2</sup>Institute of Neurosurgery, SIMS Hospitals, Chennai, Tamil Nadu, India

**Background:** Awake craniotomy is the preferred technique in surgeries involving eloquent areas of brain. Primary aim of anesthesia management is to provide awake and cooperative patient facilitating functional and neurophysiological monitoring for cortical mapping. Although opioids have minimal effect on neurophysiological monitoring, the side effects, like drowsiness, respiratory depression, itching, chest wall rigidity, nausea, and vomiting, can interfere with patient cooperation. We studied the feasibility of excluding opioids in anesthetic management of awake craniotomy and assessed the patient's response, cooperation, and comfort during the procedure in a series of patients.

**Materials and Methods:** From January 2019 opioid free anesthetic management was introduced in awake craniotomies in our institute. Age less than 18 years and more than 65 years, ASA III and above, expected surgery duration more than 6 hours, and any comorbidity that warranted asleep-awake-asleep technique were excluded. Data regarding anesthesia management, drugs used, patient cooperation, need for additional anesthetic agents, feasibility of neurophysiological monitoring, and duration of scalp block were collected.

**Results:** Eight patients met inclusion criteria. Bilateral scalp block was provided with 12 mL of bupivacaine 0.5%, Mayfield pin site infiltration was done with 3 mL of bupivacaine 0.5%. Paracetamol 1 gm was given intravenously before scalp incision. Gauze soaked with lignocaine 2% was placed on the dura mater for 3 minutes before incision. All patients were cooperative for functional assessment including language mapping. Satisfactory signals were obtained from neurophysiological monitoring. Mean duration of first perception of surgical site pain was  $7 \pm 1$  hours.

**Conclusions:** Our case series highlights that total awake craniotomy can be successfully managed with adequate scalp block and paracetamol as preemptive analgesic agents. Opioids can be spared during awake craniotomy management thus minimizing opioid related side effects and without affecting the intraoperative functional monitoring.

### A027 Anesthetic Management of a Case of Vein of Galen Aneurysmal Malformation

Vaishali,<sup>1</sup> Satyaveer,<sup>1</sup> Madhuri,<sup>1</sup> Shobha Purohit<sup>1</sup>

<sup>1</sup>Department of Anaesthesia, SMS Medical College and Hospital, Jaipur, Rajasthan, India

**Background:** A vein of Galen aneurysmal malformation is a rare congenital arteriovenous malformation of intracranial circulation in and causes intractable congestive

high-output cardiac failure in a neonate. Atrial septal defect is a common congenital cardiac anomaly resulting from a defect in the interatrial septum that causes shunting of blood from the left atrium to the right atrium through the defect leading to enlargement of the right side of the heart and of the pulmonary arteries.

**Case Description:** We present a case of vein of Galen malformation associated with atrial septal defect and its associated complications planned for embolization. A 9-month-old infant was brought with complaints of increasing head size and an uneventful birth history. MRI was done and vein of Galen malformation was diagnosed. Chest X-ray showed cardiomegaly and echocardiogram revealed severe atrial septal defect with right atrial and right ventricular enlargement. The infant was apparently normal with no significant events.

**Conclusion:** Embolization was done under general anesthesia and the patient was hemodynamically stable during the perioperative and postoperative period. The case was challenging because of its association with severe atrial septal defect

### A028 Dexmedetomidine-Based Anesthesia Facilitates Intraoperative Electrocardiography in Patients with Lennox-Gastaut Syndrome Presenting for Epilepsy Surgery: Our Case Experience

Ajay P. Hrish<sup>1</sup>

<sup>1</sup>Division of Neuroanesthesia and Neurocritical Care, Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Trivandrum, Kerala, India

**Background:** Electrocardiography is a useful tool to guide the localization of the epileptogenic focus, for surgical resection in epilepsy surgery. Drug interactions, pro-convulsant or anticonvulsant activity of the anesthetics and anesthetic influence on intraoperative electrocardiography (ECOG) are the primary concerns to be addressed in these patients.

**Case Description:** We report the anesthetic management of two patients with Lennox-Gastaut syndrome presenting for respective epilepsy surgery with intraoperative ECOG. We observed that Dexmedetomidine-based anesthesia facilitates intraoperative ECOG monitoring.

**Conclusion:** Dexmedetomidine by decreasing the requirements of other anesthetic agents offers better recovery profile and pain relief with minimal respiratory depression in patients undergoing disconnective epilepsy surgeries.

### A029 Spondyloepiphyseal Dysplasia: A Perioperative Challenge to the Anesthesiologist

Konish Biswas,<sup>1</sup> Priyanka Gupta,<sup>1</sup> Nilesh Chandra,<sup>1</sup> Ashutosh Kaushal<sup>1</sup>

<sup>1</sup>Department of Anaesthesiology, All India Institute of Medical Sciences, Rishikesh, Uttarakhand, India

**Background:** Spondyloepiphyseal dysplasia congenita (SDC) is a rare autosomal dominant genetic disorder of dwarfism involving the vertebral column and epiphyses of long bones. In addition, these patients are also likely to have short necks with limited flexion and odontoid hypoplasia