refractory status epilepticus or uncontrolled intracranial hypertension. It is major disadvantage being neurological suppression including loss of brainstem reflexes mimicking brain death posing diagnostic dilemma during neurological assessment of the patient.

Case Summary: A 17-year-old poorly built male, an old operated case of head injury, was admitted to the NIMS Hospital. He suffered cardiac arrest from which he was successfully revived. Post-arrest, he was ventilated. Some hours later, he developed generalised tonic-clonic seizures. He was given injection midazolam 4 mg (in graduated doses) followed by injection phenytoin 1000 mg. He was already on inj levetiracetam 500 mg BD. Injection midazolam infusion was started at 2 mg/h and increased to 5 mg/h without success. Injection valproate bolus 1 g intravenous (IV) was administered without success. Injection thiopentone 150 mg IV bolus followed by 25 mg twice aborted the seizures. Patient was later started on thiopentone infusion at 50 mg/h which successfully stopped the seizures for about 2–3 h. Midazolam infusion was stopped. Later, he developed focal facial seizures for which infusion was progressively increased to 150 mg/h which achieved total seizure control, confirmed by Burst suppression on electroencephalography (EEG). He was continued on the same dose for 2 days. With no evidence of seizures on a repeat EEG, the patient was slowly weaned off thiopentone over 24 h. No seizures were reported during or after this period. On the 2nd day of thiopentone infusion, oculocephalic reflexes were found to be absent. Other reflexes including pupillary reaction to light were present. Oculocephalic reflex became positive on the next day after stopping the infusion.

Conclusions: (1) Oculocephalic reflexes were as a result of use of thiopentone infusion. (2) The loss of brainstem reflex in our case was at a lower dose than reported in earlier studies. It can be a confounding factor during the assessment of neurological status of patients with brain trauma or post-cardiac arrest and may mimic brain death when all the brainstem reflexes including pupillary reaction to light are lost.

ISNACC-C-11

Spontaneous sinus arrest following intravenous phenytoin for post-operative seizure prophylaxis

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Background: In resistant epilepsy invasive techniques remains important because of poorly defined or close proximity of the epileptogenic zone to eloquent cortex. Grids are inserted by open craniotomy. In the second surgery, the electrode grids and seizure focus

is removed. Anti-epileptic prophylaxis is instituted for the management of patients with brain surgeries, hence prophylactic anticonvulsants are given for suppression of post-operative seizures. Phenytoin when compared to placebo has been reported to be significantly more effective in preventing post-traumatic seizures during the 1st week.

Case Summary: A 4-year-old child with history of refractory seizures on antiepileptics, underwent craniotomy with contact grid placement with localisation of ictal focus. The patient received phenytoin as surgical prophylaxis during second sequential surgery, after which he went into spontaneous sinus arrest following the recommended dose. He was successfully reverted to sinus rhythm after resuscitation as per ACLS guidelines. Following surgery, there was 90% reduction of abnormal electroencephalography activity. Post-operatively phenytoin was omitted from the drug list. Next 5 days, he was seizure free; after 2 days of ventilator support, he was extubated following which he was seizure free and was later.

Conclusions: It is common to have seizures in the early post-operative period, with no implications in the long run. The brain trauma foundation suggests prophylaxis, including a treatment option of giving phenytoin or carbamazepine to prevent seizures in the 1st week. With the use of phenytoin there is always an unpredictable cardiac risk. Side effects associated with parenteral phenytoin are caused by its high pH level and the propylene glycol or ethanol content used to increase solubility. The vehicle for the most widely used parenteral formulation of phenytoin is 40% propylene glycol and 10% ethanol, adjusted to a pH of 12 with sodium hydroxide. This glycol solvent is linked to seizures, arrhythmia, asystole, hepatic and renal damage. Other toxic include hyper osmolality, haemolysis and lactate-associated metabolic acidosis. It is recommended to have continuous monitoring of blood pressure and pulse in patients who are started on phenytoin. Also, for risk patients, a baseline echocardiography is also suggested. The Naranjo scale which is an adverse drug reaction probability scale, utilising a set of questionnaires, to assess drug-related adverse events this can be implemented.

ISNACC-C-12

Anaesthetic management of emergency craniotomy in a patient with left ventricular assist device

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Introduction: Left ventricular assist device therapy is an established treatment modality for patients with advanced heart failure. Short-term use of these devices