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Introduction: *Acinetobacter baumannii* (AB) meningitis is not uncommon in neurosurgical ICU and its incidence has been rising. Recent trends show that an increasing number of infections are caused by strains that are resistant to multiple drugs including carbapenems. Effective therapy in such cases is not well established and such patients often have high mortality rates. The present study shares our experience with this notorious pathogen. **Case Summary:** We retrospectively reviewed cases of multi-drug-resistant (MDR) AB meningitis in Fortis hospital, Mohali from January 2014 to October 2016. We identified six cases in our retrospective review of records with equal distribution in both genders. Four patients had severe craniofacial trauma with base of skull base fractures while two had neurosurgical intervention. The mean duration of ICU stay and duration of therapy was 50 days and 24 days respectively. All the patients received intrathecal/ intraventricular and intravenous colistin in combination with carbapenems. One patient developed resistance to colistin while on treatment and required addition of minocycline and rifampicin to therapy. The same patient developed chemical meningitis secondary to the treatment. All six patients survived. One of them is severely disabled (modified Rankin score MRS = 5), while 3 patients had MRS 1 while 2 had a MRS of 2. **Conclusion:** Despite recent reports suggesting high mortality following AB meningitis, better outcomes were observed in our cohort of patients. Intraventricular/intrathecal colistin along with intravenous colistin can be an effective therapy for this dreaded disease.

ISNACC-S-22

Neurogenic stunned myocardium – A case report

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Introduction: Cardiovascular and pulmonary complications of subarachnoid bleed (SAH) accounts for significant morbidity and mortality. We present a case of neurogenic stunned myocardium following subarachnoid bleed managed at our hospital. **Case Summary:** A known diabetic and hypertensive lady presented with h/o sudden onset severe headache along with tachycardia, dyspnoea and hypoxia. She was drowsy, having diffuse SAH on CT scan and bilateral coarse crepitations. X ray showed s/o pulmonary edema, ST-T depression in anterolateral leads, positive qualitative Troponin T, raised cardiac enzymes and gross systolic dysfunction in Echo. She was managed

with ventilation, sedation, diuretics and inotropic support for hypotension. Surprisingly, she improved quiet rapidly over the next 24 hours with repeat Trop-T being negative and echo displaying complete recovery of cardiac performance. Cerebral angiography revealed ruptured aneurysm and treated by endovascular means. She continued to improve over the next few days and was discharged for rehabilitation being neurologically and hemodynamically stable. **Conclusion:** Neurogenic stunned myocardium is defined as myocardial injury and dysfunction occurring after acute brain injury as a result of imbalance of the autonomic nervous system. Spectrum of observed cardiac abnormalities includes ECG changes, arrhythmia and both systolic and diastolic dysfunction. Features key to the identification of neurogenic stunned myocardium are fully reversible post-ischemic dysfunction and that the dysfunction is not caused by a primary defect in myocardial perfusion. Our patient had reversible cardiac dysfunction which is indicative of neurogenic cause mimicking true myocardial injury although coronary angiogram needed to be done to strengthen our diagnosis.

ISNACC-S-23

Effect of magnesium sulfate nebulization in reducing the incidence and severity of post operative sore throat in patients undergoing surgery in prone position

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Introduction: Post operative Sore throat (POST), a common complaint after GA with tracheal intubation causes significant patient discomfort. Incidence is 21-65%. Many pharmacological and non-pharmacological methods have been studied for attenuation of POST. Changing patient's position from supine to prone can cause tube displacement and changes endotracheal cuff pressure affecting incidence of POST. Therefore, we planned to study prophylactic effect of Magnesium Sulfate nebulization in patients undergoing surgery in prone position. Hypothesis of the study was magnesium sulfate nebulization reduces incidence of POST in prone position surgery. **Methods:** Hospital based prospective interventional randomized double blind study. After getting institutional ethical clearance, 140 consenting patients belonging to American society of anaesthesiologists status 1-2, 20-60 years, either sex undergoing lumbar spine surgery in prone position were randomly allocated in two groups ($n = 70$ each). Pre-operatively Group A and B were nebulized with 0.9% saline (5 ml) and magnesium sulfate (1 ml+ 4 ml saline) for 15 min respectively. GA was given and patients positioned prone 10 min after nebulization.

Incidence and severity of POST was assessed at 1, 6 and 24 hr and graded on four point scale (0-3). Collected data was analysed using SPSS. Fisher's Exact test and Mann Whitney U test was used to compare incidence and severity of POST among groups respectively. $P < 0.05$ was considered statistically significant. **Results:** The overall incidence of POST was 53%, where 54 (77%) in Group A and 21 (30%) patients in Group B experienced POST ($p < 0.0001$). POST was significantly attenuated at 1 hr and 6 hr in Group B ($p < 0.05$). POST occurred in 31 patients of Group A versus 6 patients in Group B at 6 hr. **Conclusion:** Magnesium sulfate nebulization significantly attenuated incidence and severity of POST in patients undergoing surgery in Prone Position.

ISNACC-S-24

Ketoacidosis in the diabetic neurosurgical patient: The steroid conundrum

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Introduction: Perioperative administration of steroids is common in patients with brain tumours. However in Diabetic patients steroids are known to rarely induce diabetic ketoacidosis. **Case Summary:** A 59 year old lady with Type-2 Diabetes Mellitus presented in the evening to the emergency with headache, dizziness, generalised fatigue and vomiting. The patient had mild confusion with GCS 14/15 but neurologically intact. Her serum glucose was 8.3 mmol/l. Emergency head CT revealed left fronto-parietal lesion with peritumoral edema and midline shift. She received stat dose of 12 milligrams dexamethasone and began phenytoin 100 milligrams 8th hourly. Later the patient vomited and dropped GCS to 11/15. She was intubated, sedated and shifted to surgical intensive care and continued on dexamethasone 6 milligram 6th hourly. Urgent craniotomy was done next morning. Intraoperatively her serum glucose was 20.5 mmol/l and ABG showed high anion gap metabolic acidosis. Her serum B-hydroxy butyrate was 2.2 mmol/l. She was managed as a case of diabetic ketoacidosis. **Conclusion:** Preoperative steroid use may possibly trigger diabetic ketoacidosis in the neurosurgical patients. Possible changes in practice for such scenarios would include a judicious approach to steroid usage in such patients and active management of diabetic ketoacidosis in any emergency diabetic patient.

ISNACC-S-25

Role of non invasive ventilation in patients with respiratory failure

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Introduction: Non invasive ventilation (NIV) refers to the delivery of ventilatory support or positive pressure into the lungs, usually through a mask avoiding complications of invasive ventilation. The aim of our study is to compare effectiveness of NIV in patients with acute hypoxemic respiratory failure over invasive ventilation (IV) and study intubation rate in patients receiving NIV, ICU stay and overall mortality, complications of invasive ventilation. **Methods:** A randomized prospective study was conducted after getting permission from ethical committee. 40 Patients eligible for the study were randomly assigned to receive either NIV or Invasive ventilation. Group A (n = 20) were given ventilatory support by NIV (BiPAP mode) by RESMED STELLAR 150 ventilator via facial mask, Group B (n = 20) were given ventilator support by IV (SIMV mode) by Hamilton C1 ventilator via endotracheal tube. GCS, APACHE score, P/F ratio, ventilatory and hemodynamic parameters were assessed on admission and monitored at 1 hour, 6 hour and 24 hours. **Results:** At 24 hr follow up intervals, mean PF ratio values were 302.99 ± 74.87 in Group A and 342.17 ± 34.73 in Group B ($t = 2.123$, $p = 0.040$). A total of 10 (50%) patients required intubation in Group A. The mean total duration of mechanical ventilation in group A receiving (BiPAP) was 3.90 ± 5.80 days compared to 9.50 ± 7.42 days in group B receiving invasive ventilator. ($t = 2.660$, $p = 0.011$). **Conclusion:** No superiority was found in either group in terms of hemodynamics and ventilatory parameters and blood gas analysis, however, use of NIV showed a significant reduction in total duration of ventilation, length of ICU stay and complications associated with invasive ventilation. NIV is useful alternative amongst patients requiring ventilator support.

ISNACC-S-26

Mannitol shower-the artefactual air embolism

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Introduction: Intraoperative venous air embolism (VAE) is one of the most dreaded anesthetic emergencies. We report a case of artefactual air embolism visualized by transesophageal echocardiography (TEE) which was in fact a shower caused by mannitol infusion. **Case Summary:** A 35-year-old male presenting for surgical excision of para-sagittal meningioma underwent