neurophysiological monitoring, transcranial motor-evoked potentials (MEPs), somatosensory-evoked potentials (SEPs) and electromyography (EMG). **Methods:** We conducted a prospective observational pilot study. High dose opioids, propofol and dexmedetomidine were administered for anaesthesia (BIS value of 45-55). Neuromuscular blockers, nitrous oxide, inhalational anesthetics were avoided and normothermia, euvolemia, normocapnia, mean arterial pressure >65 mm of Hg and hematocrit >21% were maintained. Cortical SSEP were recorded through monopolar needle electrodes placed on scalp. Changes were considered significant if the amplitude was decreased by more than 50% and/or the latency was increased by 10%. MEPs were elicited with electrodes inserted over motor cortex and recorded as compound muscle action potentials via surface electrodes placed in peripheral muscles. **Results:** Nine adolescents and 3 children underwent scoliotic corrective surgeries with Cobb's angle of 40°-90°. Combined MEPs and SEPs monitoring was successful in all patients. No significant intraoperative evoked potential changes were seen in any patient which coincided with the absence of any neurological deficit postoperatively. One patient developed intraoperative bradycardia, one patient had excessive blood loss with intraoperative metabolic acidosis and one patient developed surgical site infection postoperatively. No patient needed postoperative mechanical ventilation. **Conclusion:** Intraoperative neurophysiological monitoring is a safe, reliable and sensitive method for detection of intraoperative injury to spinal cord and nerve root damage during scoliosis surgery. The anaesthetic drugs administered must be compatible with the neurophysiological monitoring. Maintenance of adequate depth of anaesthesia, hemodynamic and physiological stability of the patient and postoperative pain management are the major concerns for the anaesthesiologist.

ISNACC-S-44

Hemodynamic changes in cervical myelopathy with prone position using non invasive cardiac output monitor

M. Nitin, V. J. Ramesh, M. Radhakrishnan

Department of Neuroanaesthesia and Neurocritical Care, NIMHANS, Bengaluru, Karnataka, India

Introduction: Prone positioning under anaesthesia alters cardiovascular physiology and cervical myelopathy patients are known to have autonomic dysfunction thus putting them at higher risk of developing hemodynamic changes when prone and this can compromise spinal cord perfusion. **Methods:** This prospective observational study was conducted on 30 patients with cervical myelopathy who were positioned prone at NIMHANS.

The non invasive cardiac output monitor (NICOM) was used to record hemodynamic parameters. The time points for recording were at baseline, post induction, post intubation, prone position, post prone position every 5 min. The hemodynamic parameters recorded: HR - heart rate (/min), MAP - mean arterial pressure (mmHg), CO - cardiac output (l/min), SV - Stroke volume (ml/beat), SVV - stroke volume variability (%), TPR - total peripheral resistance (dynes. sec/cm⁵). **Results:** We found significant decrease in HR ($p<0.001$), MAP ($p<0.001$), TPR ($p<0.001$). SV, CO and SVV showed no significant change. This may be due to impaired compensatory ability (to increase HR and TPR in response to fall in MAP, SV CO as seen in other studies) due to combined effects of anaesthesia and autonomic dysfunction. 60% patients had Hypotension in the post prone period and mephentermine requirement was high in the post prone positioning period. **Conclusions:** Hypotension occurs commonly after prone positioning in these patients. We conclude that the decrease in MAP is due to decrease in TPR and HR. We recommend use of vasopressors rather than inotropes to treat such hypotension in these patients.

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Effects of different prone patient positioning on optic nerve sheath diameter in spine surgery

A. K. Pandey, K. N. Gopalakrishnan, V. J. Ramesh

Department of Neuroanesthesia, NIMHANS, Bengaluru, Karnataka, India

Introduction: Prone position is associated with raised ICP which leads to various complications. Optic nerve sheath diameter (ONSD) is a non-invasive method of estimation of ICP. We studied the effects of prone and reverse trendelenburg position of 10° on ONSD in patients undergoing spine surgeries. **Methods:** Adult patients with ASA grade 1 and 2 undergoing lumbar and lower thoracic spine surgeries in prone positions were recruited. Patients were randomized into Group A (normal prone position) and Group B (10° reverse trendelenburg position). A standard anesthetic regimen was followed. ONSD was measured at supine position after induction (T_B), after turning patients to prone position (T_P), after completion of 2 hrs (T_{P2}) and then hourly (T_{P3} , T_{P4} and so on). ONSD was also measured after completion of surgery and turning patient supine (T_{ES}) and 30 minutes after 30° of head up position post-extubation (T_{E30}). ONSD changes were compared both within and between groups at various time points. **Results:** Sixty patient's data were analyzed. There was clinically significant increase in the ONSD between T_B and T_P in both groups. Significant increase of ONSD was