

Table

Table 1: Incidence of hypotension

Type of surgery	Total number of cases	Hypotension, n (%)	Percentage of total hypotension (n/127) (%)
Cervical spine			
Prone	45	14 (31.1)	18/127 (14.2)
Supine	51	4 (7.8)	
Thoracic spine			
Prone	20	7 (35)	12/127 (9.4)
Lateral	09	5 (55.5)	
Lumbar spine	287	11 (3.8)	11/127 (8.7)
Supratentorial			
Supine	101	23 (22.8)	24/127 (18.9)
Sitting	02	1 (50)	
Infra tentorial			
Lateral	18	7 (38.8)	13/127 (10.2)
Prone	17	6 (35.3)	
Aneurysm	15	3 (20)	3/127 (2.4)
Epidural hematoma	21	9 (42.9)	9/127 (7.1)
Decompressive craniotomy	36	19 (52.7)	19/127 (15)
Miscellaneous	234	18 (7.7)	18/127 (14.2)
Total	856	127 (14.8)	

## ISNACC-S-18

## Can superior saggital sinus density predict anemia?

## B. S. Deepti, D. Chakrabarti

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

**Introduction:** Correlation between density of superior saggital sinus (SSS) on CT scan and haemoglobin (Hb) has been described previously. The extent of contribution of leucocytes (TLC) and platelets (PC) to SSS density is not known. With this study we aimed to find the contribution of WBC and Platelets to the SSS density and identify a cut-off value for SSS density to predict anemia. **Methods:** Data was collected retrospectively from the electronic database for all head injured (TBI) patients operated within a 4 month period (n = 71). Maximum and average SSS density in Hounsefeld units (HU) was calculated in two ways-(i) triangular area outlining the SSS (Tmax/mean) and (ii) circular area of 0.03-0.05 cm<sup>2</sup> in SSS (Cmax/mean). Concurrent Hb, TLC and PC were noted. Linear regression was used to find independent predictors of Hb among the significant correlations

Table 2: Causes of hypotension

Cause	Incidence (n)	% (n/127)
Haemorrhage		
Gen/arterial	88	69.3
Venous sinus	4	3.14
Position	1	0.8
Pneumothorax	1	0.8
Venous air embolism/ paradoxical air embolism	0	0
Cardiac		
Preoperative left ventricular dysfunction	1	0.8
Acute coronary event	0	0
Arrhythmias	11	8.7
TakotSubot	0	0
Auotonomic dysfunction	3	2.4
Neurogenic shock/ spinal shock	1	0.8
Drugs		
Pericardial effusion	0	0
Angiotensin converting enzyme/ angiotensin-receptor blocker	2	1.57
Anti-Parkinson	1	0.8
Anaphylaxis	1 (vancomycin)	0.8
Anaesthetic drugs	3 (atracurium), 9 (propofol)	2.4, 7.1
Antiepileptic dugs	0	0
Misc		
Serotonin secreting tumours	1	0.8
Others	0	0

within hematological parameters. ROC curve was used to find a cut-off value for the SSS density to diagnose Hb less than 10 gm/dl. **Results:** Tmax/Tmean/Cmax/Cmean had significant correlations with Hb (p<0.05) with coefficients of 0.335, 0.349, 0.416 and 0.445 respectively. TLC and PC were not associated with any of the CT scan parameters. Linear regression revealed only Cmean to be independently predictive of Hb (P = 0.017). Regression equation derived was [Hb=9.142+0.89\*Cmean]. Area under the ROC curve for Cmean as a predictive test of Hb was 0.791 (P = 0.003) and Cmean of 44.83 HU predicted Hb <10 gm/dl with sensitivity/specificity 80% and 76%

respectively. **Conclusion:** TLC and PC do not appear to influence the density in SSS on CT scan in TBI patients—because of much higher mass of RBCs compared to WBCs and platelets. Cmean of 44.83 HU predicted Hb <10 gm/dl with good sensitivity and specificity and can be used clinically to determine need for blood transfusion if laboratory value of Hb is not available readily.

#### ISNACC-S-19

##### Coiling/clipping: The ideal treatment in Indian scenario

H. Dholke, K. Mohanrao, M. Panigrahi<sup>1</sup>

Departments of Neuroanaesthesia and <sup>1</sup>Neurosurgery, Krishna Institute of Medical Sciences, Secunderabad, Telangana, India

**Introduction:** Cerebral Aneurysm, aneurysmal sub arachnoid haemorrhage (SAH) has devastating consequences, and every patient should be treated and managed in emergency. The two different options available for the treatment are surgical clipping of the aneurysm or endovascular coiling. Also the post op management should be taken care for a better neurological outcome. **Methods:** It is a retrospective study from April 2009-Jan 2014 and prospective from Feb 2014-Jan 2015 of the patients who were symptomatic for aneurysmal SAH either ruptured/un-ruptured and underwent coiling or clipping for the aneurysm accordingly at KIMS hospital Secunderabad. A total of 244 patients over a period of 5 yrs were admitted for coiling or clipping who had either radiological or clinical evidence of aneurysm. Patient demography, Clinical grades, location of aneurysm, vasospasm and outcomes were analysed for both coiling and clipping. **Results:** A total of 191 patients underwent microsurgical clipping of which, 175 (92%) had anterior circulation aneurysm and 17 (18%) had posterior circulation aneurysm. Out of the operated 179 (94%) survived, and 12 (6%) expired. Similarly of the coiling patients 42 (70%) had anterior circulation aneurysm, and 18 (30%) had posterior circulation aneurysm. 1 patient in coiling had a rebleed, 4 of the patients from the coiling group eventually underwent clipping due to failed coiling. 56 (93%) survived and 4 (7%) died in coiling category. However the length of stay of the coiling patients was less i.e. 8 days when compared to clipping group where it was 13 days, but there was no significant outcome when compared to each other. **Conclusions:** In a developing country like India the cost of treatment of aneurysm and infrastructure required for endovascular coiling suite in most of the neuro center becomes a problem. In such a scenario our study supports that coiling and microsurgicalclipping have equal outcomes and patients should be offered both type of treatments.

#### ISNACC-S-20

##### Outcome related to general anaesthesia versus regional anaesthesia for lower extremity surgery in patients with mild traumatic brain injury

V. Ganesh, H. Bhagat, Y. K. Batra, A. Anand<sup>1</sup>, V. Kumar<sup>2</sup>, P. Salunke<sup>3</sup>

Departments Anaesthesia and Intensive Care, <sup>1</sup>Neurology, <sup>2</sup>Orthopaedics and <sup>3</sup>Neurosurgery, PGIMER, Chandigarh, India

**Introduction:** Traumatic brain injury (TBI) is a major cause of morbidity and mortality. Secondary insults are known to worsen survival after TBI. The management of a brain injured patient following trauma for non-neurosurgical procedure, for example lower limb surgery, is a challenge. Regional anaesthesia (RA) has the advantage of continuous neuro-monitoring whereas there can be hypotension. General anaesthesia (GA) has the advantage of controlled ventilation, but multiple drugs can raise the ICP. There is no evidence to suggest that any particular anaesthesia technique or agent is optimal in this patient group.

**Methods:** This is a prospective randomised pilot trial (CTRI/2016/01/006554) among 40 patients with acute mild TBI, who presented for isolated lower extremity surgery, followed up till discharge. Under standard monitoring 20 patients were given GA with fentanyl, propofol, vecuronium, oxygen, air and desflurane. The other group of 20 patients RA received an epidural catheter and subarachnoid block with 0.5% bupivacaine and fentanyl. Intraoperative hemodynamics were recorded along with blood gases, amount of blood loss etc. **Results:** Outcome variables were found comparable in both groups, analysed as change in postoperative GCS (GA 14.00 ± 2.340; RA 14.75 ± 0.550; p 0.171), change in serum S100B levels (GA 137.5 ± 368.15 ng/L, RA 66.82 ± 277.34 ng/L; p 0.508). Intraoperative hemodynamics such as incidence of hypotension, hypoxia etc were also similar between the groups, however postoperative in-hospital days were less in the RA group (13.70 ± 3.114) vs GA group (18.10 ± 7.122; p 0.016) which also had higher incidence of wound infection and postoperative ventilator requirement. **Conclusion:** The results of our study indicates that both techniques appear similar in terms of neurological outcome.

#### ISNACC-S-21

##### Our experience with multi-drug resistant acinetobacter meningitis

S. Garg, M. Mittal, A. C. Swami, V. K. Khosla<sup>1</sup>, A. Dhingra<sup>1</sup>