Table 1: Overall trends of change in parameters across time points

Parameter	Preincision	Postincision	Precraniotomy	Beginn craniotomy	End craniotomy	Postcraniotomy	Postdurotomy	Postdecompression	P
CI	4.3±1.3	4.3±1.2	4.1±1.3	3.9±1.6	3.6±1.5	3.6±1.1	3.8±1.3	3.7±1.1	0.008
SVI	48.2±10.7	47.4±10.6	46±12.7	42.8±16.4	41.3±15.5	42.9±12.7	44.8±14.8	42.7±12.9	0.291
SVV	9.3±3.6	8.7±3.8	8.3±2.7	9.1±5	10.9±4.4	10.3±4.7	6.4±2.2	10.1±5.3	0.026
SVRI	1610±584	1867±755	1818±851	2202±1317	2165±1198	1767±575	1537±470	1583±664	0.052
PR	89.1±18.8	91.9±18.9	90.3±18.6	92.3±18.7	88.9±19.5	87.8±19.6	85.6±17.9	89±16.7	0.068
MAP	90.9±14	100.1±16.2	91.7±13.9	97.9±12.6	91.5±17.8	84.2±13.8	79.6±13.6	79.5±12.4	<0.001

CI: Cardiac index, SVI: Stroke volume index, PR: Pulse rate, MAP: Mean arterial pressure, SVRI: Systemic vascular resistance index, SVV: Stroke volume variation

craniotomy and increased after durotomy significantly. Stroke volume variation (SVV) increased during craniotomy and decreased after durotomy significantly. MAP increased at beginning of craniotomy and decreased significantly after durotomy. SVRI and SVI decreased, PR increased during craniotomy but was not statistically significant. **Discussion:** Decrease in CI, increase in SVV and SVRI, not associated with change in PR or MAP occurred in the pericraniotomy period due to blood loss during craniotomy. The increase in CI and fall in SVRI and MAP after durotomy may be the result of loss of sympathetic tone. Advanced haemodynamic monitoring might be useful and provide better understanding of pressure and flow changes in patients undergoing surgery for head injury.

ISNACC-S-31

Comparison of changes in central venous oxygen saturation and ST segment changes in a V lead electrocardiographic with changes in haemoglobin in neurosurgical patients undergoing craniotomy and tumour excision: A prospective observational study

Liby G. Pappachan, Georgene Singh

Christian Medical College, Vellore, Tamil Nadu, India

Background: The aim of the study was to observe the trends in central venous oxygen saturation (ScvO₂) and ST segment changes with change in haemoglobin (Hb) in patients undergoing acute blood loss during surgery and assess their role as blood transfusion trigger. **Methods:** Seventy-seven consecutive patients undergoing craniotomy were recruited for this study at a tertiary care institution after obtaining written, informed consent. After establishing standard monitoring,

anaesthesia was induced with standard anaesthetic protocol. Central venous cannulation was performed either in the subclavian or internal jugular vein with electrocardiogram guidance to confirm the position of the catheter tip at the superior vena cava-right atrial junction. ScvO₂ was checked at baseline, before and after blood transfusion and at the end of the procedure. ST changes were also recorded at the above times. Comparison of the mean and standard deviation for the haemodynamic parameters was performed between the transfused and not transfused patient groups. Pearson correlation test was done to assess the correlation between the covariates. Receiver operating characteristic (ROC) curve was constructed for the ScvO₂ variable, which was used as a transfusion trigger and the cut-off value at 100% sensitivity and 75% specificity was constructed. Linear regression analysis was done between the change in Hb and the change in ScvO₂ and change in Hb and change in the ST segment. **Results:** There was a statistically significant positive correlation between the change in ScvO₂ and change in Hb during acute blood loss with a regression coefficient of 0.8 and also between change in ST segment and Hb with a regression coefficient of -0.132. The ROC curve showed a ScvO₂ cut off of 64.5% with a 100% sensitivity and 75% specificity with area under curve of 0.896 for blood transfusion requirement. **Conclusions:** We conclude that ScvO₂ and ST segment changes may be considered as physiological transfusion triggers in patients requiring blood transfusion in the intraoperative period.

ISNACC-S-32

Retrospective analysis of airway management, intraoperative haemodynamics and post-operative complications in patients with atlantoaxial dislocation