

ABSTRACT NO. : ABS0233

**Perfusion Index to Predict Hypotension following
Subarachnoid Block in Caesarean Delivery**

Resmy John Varghese

Krishna Institute of Medical Sciences, Karad

Background & Aims : Perfusion index (PI) is a non-invasive monitoring tool. However, there are limited studies on predicting hypotension using PI. The aim of this study was to determine the predictive ability in foreseeing hypotension using baseline P.I in caesarean section following blockade

Methods: In our prospective observational study, a total of 300 parturients were included. Along with the regular preoperative monitoring, baseline PI was assessed. Subarachnoid block was obtained with 12mg hyperbaric 0.5% bupivacaine and a level of T6 was attained. Haemodynamic variables were monitored every minute for initial 10 minutes and then every 5 minutes during surgery after spinal anaesthesia. Hypotension was defined in the study as more than 20% decrease from the baseline mean arterial pressure.

Results: Receiver Operating Characteristic (ROC) analysis revealed that baseline perfusion index could predict hypotension following a subarachnoid block in caesarean section. A new cut off point of 3.6 was obtained for PI with 81.2% sensitivity and 90.2% specificity. Area under the curve for baseline perfusion index in detecting hypotension following spinal anaesthesia was 0.906.

Table: Diagnostic accuracy of baseline PI in detecting hypotension following spinal anaesthesia

	Hypotension		Total
	Yes	No	
Baseline PI			
≥3.6	95	18	113
<3.6	22	165	187
Total	117	183	300

Conclusion: In our study we made an attempt to find a new predicative cut off value for baseline PI. We were able to illustrate that, a cut off value of PI 3.6 could predict hypotension. ROC analysis depicted fairly good sensitivity and specificity for baseline PI to predict hypotension after subarachnoid blockade in caesarean section

Key Words: Anaesthesia, spinal; hypotension; perfusion index

References:

1. Toyama S, Kakumoto M, Morioka M, Matsuoka K, Omatsu H, Tagaito Y, et al Perfusion index derived from a pulse oximeter can predict the incidence of hypotension during spinal

anaesthesia for Caesarean delivery. Br J Anaesth. 2013 111:235-41.

2. Duggappa DR, Lokesh MPS, Dixit A, Rinita P, Rao RSR, Prabha P. Perfusion index as a predictor of hypotension following spinal anaesthesia in lower segment caesarean section. Indian J Anaesth 2017;61:649-54