

Sl no	Author, Year	Trial	Subjects number	Statistical measure	Statistical value	P value	Comments
1	Cox et al., 2017 [43]	Effect of blinding of NIRS monitoring on cerebral oxygenation	41	Correlation analysis, r	0.448 (SBP), 0.708 (DBP) and 0.608 (MBP)	< 0.0001	Authors conclude that there may not be perfect method available to detect cerebral desaturations
2	Hayashi et al., 2017 [3]	Effect of maintenance of arterial blood pressure on regional cerebral tissue oxygen saturation.	20 (33 right sided and 24 left sided incidences)	NA	NA	NA	Authors conclude despite appropriate MAP management, CDEs still can occur
3	Ko et al., 2012 [4]	Correlation between the cerebral rSO ₂ and the MAP at the level of brain	50	Correlation analysis, r	0.0.078 (L), 0.099 (R) for brain level MAP	< 0.01	Authors conclude rSO ₂ measurements likely to correlate to brain level MAP measurements than heart level.
				Correlation analysis, r	0.275 (L), 0.269 (R), for heart level MAP	> 0.05	
4	Kocaoglu et al., 2014 [39]	Whether MAP measurements individually parallel cerebral oximetry measurements by NIRS.	53	Correlation analysis, r	0.46 (L), 0.49 (R), induction to 5 minutes after BCP.	< 0.01	Authors conclude in the absence of rSO ₂ monitoring, MAP is the available alternative peripheral monitoring.
				Correlation analysis, r	0.46 (L), 0.45 (R), 30 minutes of surgery in BCP	< 0.01	
				Correlation analysis, r	0.44 (L), 0.47 (R), 60 minutes of surgery in BCP	< 0.01	
5	Schramm et al., 2016 [38]	Effects of cardiac output and MAP on cerebral oxygen saturation	35	Correlation analysis, r	0.041*	0.15	Influence of CO on cerebral oxygen saturation seems to be more relevant than MAP.
				Correlation analysis, r	0.02**	0.44	
6	Triplet et al., 2015 [37]	Correlation of NIBP and estimated temporal MAP to rSO ₂	26 (45 incidences)	Correlation analysis, r	-0.3, NIBP (BL)	0.045	Authors conclude that NIBP and eTMAP are unreliable methods for identifying a CDE in the beach chair position. Cerebral oximetry provides additional information to the values obtained from NIBP and eTMAP, and all should be considered independently and collectively.
	a. rSO ₂ absolute value			Correlation analysis, r	-0.24, NIBP (CDE)	0.24	
				Correlation analysis, r	-0.202, eTAMP (BL)	0.183	
				Correlation analysis, r	-0.19, eTAMP (CDE)	0.212	
	b. % of decrease			Correlation analysis, r	0.064, NIBP	0.675	
				Correlation analysis, r	0.121, eTAMP	0.43	
7	Woo et al., 2018 [13]	Correlation between rSO ₂ and blood pressure	38 (36 incidences)	Correlation analysis, r	-0.208, NIBP	0.224	Blood pressure measurements alone might not be useful in predicting the occurrence of CDEs.
				Correlation analysis, r	-0.251, eABP	0.139	
8	YaDeau et al., 2011 [36]	Association of rSO ₂ desaturation with potential risk factors	99	Univariate analysis estimation	3.21 (1.18 to 8.71)	0.02	Authors could demonstrate a non-significant association with episodes of hypotension (P = 0.34) but a significant association with the presence of risk factors for cerebrovascular disease for CDEs.
				Multivariate analysis estimate for cardiovascular risk factor (yes vs no)	104 (2.66 to 4109)	0.01	
9	YaDeau et al., 2018 [40]	Effect of positive pressure ventilation on cerebral oxygenation	3215	Correlation analysis, r (mixed effect modelling)	0.03 (- 0.08 to 0.14)	> 0.05	Cerebral oxygenation did not correlate with MAP however a moderate correlation strength (r = 0.48) was observed with EtCO ₂ values.