Correlation between triple low and ASA score – does it exist?

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BACKGROUND AND GOAL OF STUDY

Triple low, commonly described as intraoperative occurrence of low mean arterial pressure, low mean alveolar concentration of an anesthetic, and low bispectral index is a phenomenon which is presently widely discussed. Our aim was to assess if and how the preoperative ASA score influences the likelihood of triple low occurrence. We chose a patient case series homogenous as to the method of anaesthesia maintenance (sevoflurane monitored by BIS value). All desflurane cases were excluded.

RESULT AND DISCUSSION

We found that the distribution of ASA scores did not vary between the groups (Table 1).

TABLE 1

ASA score	Group I	Group II
ASA 1	0,59%	0,41%
ASA 2	82,34%	85,54%
ASA 3	15,98%	13,22%
ASA 4	1,09%	0,83%

MATERIALS AND METHODS

Between Jan.2016 and Sept.2017 5218 patients underwent general anesthesia with sevoflurane. In order to assure that induction was standardised all emergency cases were excluded from the analysis. Typical induction consisted of (on average) propofol 2 mg/kg, fentanyl 2.8 ug/kg; rocuronium 0.6 mg/kg. Maintenance consisted of sevoflurane adjusted by BIS, rocuronium (infusion 0.6 mg/kg/h) and fentanyl in adjusted doses. 245/5218 patients presented "triple low" i.e.: MAC<0.8, MAP<75 mmHg, BIS<45. Group I (no triple low) consisted of 4973 pts; group II – 245 pts. Statistically the groups did not vary (Fisher's test). The ASA scores in both patient groups were compared.

CONCLUSION

We have found no correlation between the incidence of triple low and ASA score.