ISNACC-S-38

A randomised comparative study between AirTraq and McCoy for intubation in patients with cervical spine injury

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Background: Various airway devices have been used successfully for endotracheal intubation of simulated patients with cervical collar. This study was done to compare AirTraq and McCoy for intubation characteristics and haemodynamic parameters following endotracheal intubation in patients undergoing anterior cervical discectomy and fusion (ACDF) surgery. Methods: After Institutional Ethical Committee approval, a prospective randomised comparative study was designed on 60 American Society of Anesthesiologists I and II patients involving single level ACDF with mild to no neurological deficit. Following standard anaesthesia protocol and manual in-line stabilisation applied along with cervical collar or pin traction, all the patients were intubated either with AirTraq or McCoy. The time taken for intubation, Intubation Difficulty Scale (IDS) score, comfort grading and haemodynamic parameters were noted following intubation. Statistical Analysis: The categorical data were compared using Chi-square test and the continuous variables were compared between the groups using paired sample t-test. Repeated ANOVA was tested for haemodynamic data at each measurement time point, and Tukey post hoc was used for within the group comparisons at different timings following intubation. Results: The mean intubation time was 24.41 ± 14.8 s in AirTraq group which was statistically significant compared to McCoy group 38.96 ± 15.55 s (P = 0.001). The IDS score and comfort grading were statistically significant in Group A compared to Group M. The changes in heart rate and mean arterial pressure following intubation were comparable in both the groups. **Conclusion:** AirTrag improves the grade of glottic visualisation with minimal assistance. It also minimised the time taken for intubation and had stable haemodynamics with increased comfort to the anaesthetist.

ISNACC-S-39

Intranasal transmucosal sphenopalatine ganglion block: An approach to block anterior scalp innervation

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Introduction: Scalp block is traditionally given based on innervations and local infiltration to specific sites where the superficial nerves emerge. These nerves are branches of trigeminal nerve branches anteriorly and cervical plexuses posteriorly. That is supratrochlear and supraorbital are from ophthalmic division, zygomaticotemporal is from maxillary division, auriculotemporal and posterior auricular are from mandibular division, greater and lesser occipital are the branches from cervical plexus. Sphenopalatine ganglion block by transnasal route blocks the sphenopatlatine ganglion and its emerging nerve roots. This requires minimal expertise in placement of culture swabs impregnated with local anaesthetic. Once the culture swabs were in place bilaterally, 5 ml of 0.5% sensorcaine was instilled with the help of an intravenous catheter. This blocks the nerves supplying the anterior part of the cranium from suprorbital nerve to posterior auricular nerve. To complete the block, all the patients also received specific nerve block in the posterior area pertaining to the exact site of pin placement. This study was, therefore, done to analyse if this approach can be an alternative to anterior scalp block in patients undergoing craniotomies. Materials and Methods: After approval from Institutional Ethics Committee, 50 patients undergoing elective craniotomy surgeries for various causes who belonged to American Society of Anesthesiologists I or II were randomly assigned into two groups (Group SPG - sphenopalatine block, Group S - scalp block). After induction and intubation, either of the procedure was performed as per the group. All the patients were maintained with 0.8-1 minimum alveolar concentration of isoflurane concentration throughout the procedure. The patients were observed for haemodynamic parameters following pin insertion, surgical incision and dural incision. Secondary objectives included any complications observed. Results: This was done for 25 patients in each group. All the data were normally distributed. Two sample independent t-test was done for numerical, ordinal data which showed there was no significant difference between the two groups (for haemodynamics). Discussion and Conclusion: Transnasal sphenopalatine block is a non-invasive technique and requires very less dosage of local anaesthetic for its blockade. This minimally invasive technique of blocking the scalp nerves can be an effective alternative to scalp block in patients undergoing craniotomy for supratentorial surgeries.

ISNACC-S-40

A comparison of maintenance and recovery profile of sevoflurane and desflurane with dexmedetomidine in patients undergoing surgery for supratentorial tumours

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