CHAPTER VII
SUMMARY AND CONCLUSIONS
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The present work "A study to evaluate sevoflurane with or without N₂O and to compare it with propofol as induction agent' was conducted in 150 patients of either sex in age group of 20-40 years undergoing short elective surgical procedures under general anaesthesia. Patients posing potential gastric regurgitation, having upper respiratory tract infection, with anticipated difficult intubation, morbidly obese, smokers, pregnant patients and feeding mothers were excluded from the study. No patient was premedicated.

The patients were divided into three groups of fifty each. Group I patients breathed 8% sevoflurane in O₂, group II patients breathed 8% sevoflurane in N₂O and oxygen, while in group III patients, injection propofol @ 0.5 ml/sec was administered for induction.

Presence or absence of coughing, breath holding, laryngospasm, bronchospasm, and excessive salivation was noted.

In addition to it, changes in pulse rate, systolic blood pressure and diastolic blood pressure was also recorded. Observation were analysed, compared statistically and were as follows:

1. Time of dropping of weighted syringe was significantly less in group III as compared to group I and group II.
2. Time of eyelash reflex was significantly less in group III as compared to group I and group II.

3. Time of jaw relaxation was significantly less in group III as compared to group I and group II. However this time was significantly less in group II when compared with group I.

4. Dose of propofol required for jaw relaxation was significantly more than that required for loss of eyelash reflex and also dose required for loss of eyelash reflex was significantly more than that required for dropping of weighted syringe.

5. There was no statistical significant difference in breath holding between group I and II and also between groups II and III. However the number of patients having breath holding during induction was significantly less in group I as compared to group III.

6. Significantly more number of patients moved on insertion of LMA in group III and I as compared to group II.

7. Induction of anaesthesia was associated with a significant increase in pulse rate and decrease in systolic and diastolic blood pressure as compared to basal values. Although the pulse rate dropped to baseline in group I and II, but it did not touch the baseline in group III till the five minute period after the placement of LMA.
8. There was significant increase in pulse rate after insertion of LMA in all the groups. There was no significant difference amongst all the three group regarding the rise in pulse rate.

9. There was significant increase in the systolic and diastolic blood pressure in all the group after insertion of LMA. However the extent of rise of systolic blood pressure was more in group III as compared to group I and II.

10. None of the patients had cough, laryngospasm or bronchospasm.

11. LMA could be inserted in all the patients successfully.

12. There was no significant decrease in oxygen saturation in any group at any time during induction and LMA placement.

13. Both techniques of induction were statisfactory and patients had no objection to undergo induction with either technique again, if required.

From this study it can be concluded that 8% sevoflurane carried in nitrous oxide and oxygen is a rapid, reliable and safe method for the induction of anaesthesia when a vital capacity technique is used. The slightly slower induction time with sevoflurane as compared to propofol can be offset by reduced incidence of breath holding and involuntary movements. Although the time taken for induction is significantly faster with the propofol but the above technique can safely be used as an alternative to intravenous induction in patients with needle phobias or difficult intravenous access.