Assessment of complications of general anesthesia in patients undergoing surgical procedures

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ABSTRACT

Background: The surgeon needs to have sufficient awareness about principles of general anesthesia. The present study was conducted to assess complications of general anesthesia inpatients undergoing surgical procedures.

Materials & Methods: 82 patients underwent surgical procedures under spinal anesthesia of both genders were studied. All medical and physical clinical findings were recorded in case history proforma. The postoperative complications occurring due to administration of general anesthesia were recorded.

Results: Out of 82 patients, males were 50 and females were 32. Common complications were nausea/ vomiting in 54, sore throat in 34, anaphylaxis in 49, post- operative pain in 32, nerve injury in 26, respiratory problem in 14 and cardiovascular problem in 22. The difference was significant (P< 0.05).

Conclusion: Common complications were nausea/ vomiting, sore throat, anaphylaxis, post- operative pain, nerve injury, respiratory problem and cardiovascular problem.

Key words: anaphylaxis, cardiovascular problem, General anaesthesia

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INTRODUCTION

General anaesthesia is administered intravenously or through mask. World Health Organization (WHO) stated that around 230 million major surgical procedures are performed annually under general anaesthesia universally.[1]The main aim of general anesthesia is to make patients unconscious and unable to feel painful stimuli while controlling autonomic reflexes.

The surgeon needs to have sufficient awareness about principles of general anesthesia. Surgeries can be classified as elective, semi-elective, urgent, and emergent.[2]Elective surgeries can be scheduled as there is no medical emergency and. Semi-elective surgeries are performed to save patient's life but do not requireto performed immediately.[3] Patients undergoing surgical procedures that require deep relaxation for long periods of time are best suited for general anesthesia as long as there are no contraindications. Surgeries that are unable to be adequately anesthetized with local or regional anesthesia require general anesthesia.[4] There are many complications of general anesthesia such as aspiration, nausea, vomiting, sore throat, anaphylaxis and nerve injury etc.[5]Neurologic complications related to anesthesia are infrequent but can be serious.[6] Neurologists are often consulted to evaluate patients with postoperative symptoms and must be ready to discriminate those truly caused by the anesthetic drug or procedure from the more common postoperative complications that are unrelated to the anesthesia itself.[7,8]The present study was conducted to assess complications of general anesthesia inpatients undergoing surgical procedures.

MATERIALS & METHODS

The present study comprised of 82 patients underwent surgical procedures under spinal anesthesia of both genders. The consent was obtained from all enrolled patients.

Data such as name, age, gender etc. was recorded. All medical and physical clinical findings were recorded in case history proforma. The postoperative complications occurring due to administration of general anesthesia were recorded. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 82		
Gender	**Males**	**Females**
Number	50	32

Table I shows that out of 82 patients, males were 50 and females were 32.

Graph I Distribution of patients

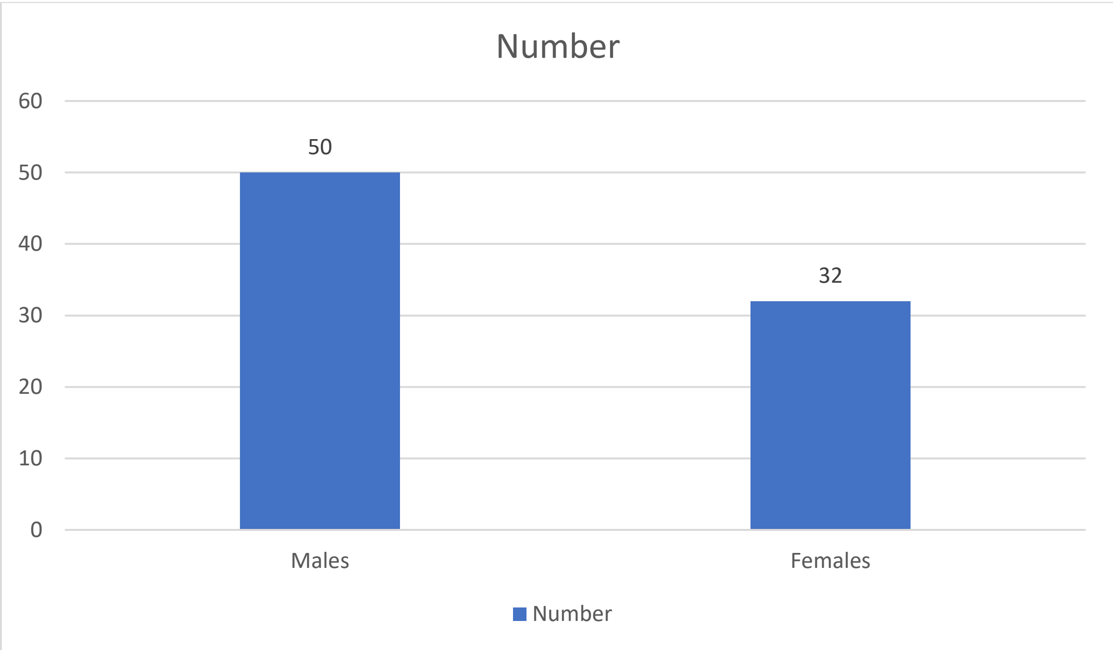
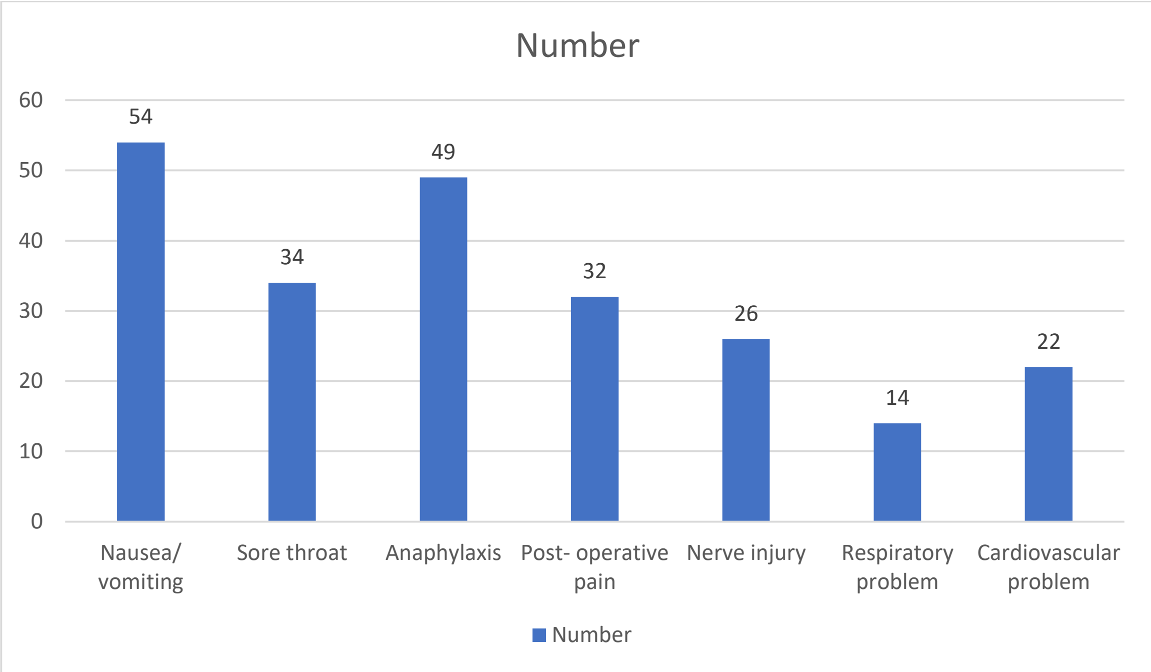


Table II Assessment of complications

Complications	Number	P value
Nausea/ vomiting	54	0.21
Sore throat	34	
Anaphylaxis	49	
Post- operative pain	32	
Nerve injury	26	
Respiratory problem	14	
Cardiovascular problem	22	

Table II, graph II shows that common complications were nausea/ vomiting in 54, sore throat in 34, anaphylaxis in 49, post-operative pain in 32, nerve injury in 26, respiratory problem in 14 and cardiovascular problem in 22. The difference was significant (P< 0.05).

Graph II Assessment of complications



DISCUSSION

A particular focus should be on the further optimization of training in anesthesiology.[9] This includes not only specialty training leading to the qualification of anesthesiologist, but continuing safety training should also include simulator training.[10,11,12]Patients undergoing surgical procedures that require deep relaxation for long periods of time are best suited for general anesthesia as long as there are no contraindications.[13] Surgeries that are unable to be adequately anesthetized with local or regional anesthesia require general anesthesia. Operations that are likely to result in significant blood loss or in which breathing will be affected necessitate general anesthesia.[14] Uncooperative patients are also better treated with general anesthesia even for smaller procedures. Patient preference can also affect the decision to undergo anesthesia.[15,16]The present study was conducted to assess complications of general anesthesia inpatients undergoing surgical procedures.

In present study, out of 82 patients, males were 50 and females were 32. Bhasket et al[17] conducted a study on 1853 patients was done who underwent various surgical procedures during general anesthesia. The most common anesthetic complication observed in the present study was postoperative pain, found to be present in 40.4% of patient population. Nausea and vomiting were found to be present in 33.09% of the patient population. Sore throat and anaphylaxis were found to be present in 17.65% and 7.35% of patient population.

We found that common complications were nausea/ vomiting in 54, sore throat in 34, anaphylaxis in 49, post- operative pain in 32, nerve injury in 26, respiratory problem in 14 and cardiovascular problem in 22. General anesthesia is most commonly achieved via induction with IV sedatives and analgesics followed by maintenance with volatile anesthetics.[18] Patients better tolerate intravenous induction, but inhalational induction is often used in children or where IV access is problematic. All IV anesthetics can produce rapid unconsciousness depending on dosage and rate of administration. Redistribution from the brain to muscle and adipose tissue along with metabolism leads to awakening.[19]

Eichelsbacheret al[20] found that common side effects of general anesthesia comprise of transient confusion or memory loss, dizziness, urinary retention, nausea, vomiting, chills, and sore throat. Older, sicker patients undergoing lengthy procedures are at augmented danger of serious complications including persistent confusion, memory loss, heart attack, pneumonia, thromboembolism and cerebrovascular accident. Death as a result of general anesthetic is rare and projected to be nearly 1 in 150,000.

CONCLUSION

Authors found that common complications were nausea/ vomiting, sore throat, anaphylaxis, post- operative pain, nerve injury, respiratory problem and cardiovascular problem.

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