Effect of Pre-Anaesthetic Evaluation on Complication Free Outcome among Day-Care ENT Surgeries in a Tertiary Care Hospital

Jayachandran C.G.[1], Naiji S. James[2], Ushakumari P.R.[3]

[1, 2, 3] Department of Anaesthesiology, Government Medical College, Thiruvananthapuram, Kerala, India.

ABSTRACT

BACKGROUND

Day-care surgery in all the surgical specialities has become an accepted and popular method among the health care personnel and patients. Lesser demand for in-patient beds and lower cost of hospital stay are making this therapeutic modality more acceptable. Current concepts in anaesthesia, availability of newer anaesthetic drugs and surgical methods have helped in achieving progress of day-care surgeries. Pre-anaesthetic evaluation of patients determine their fitness for day-care anaesthesia and surgery, and at times guide the anaesthesiologist in formulating appropriate plans and strategies. We wanted to observe the demography of patients undergoing day-care surgery and estimate the proportion of complication free outcome among day-care ENT procedures following pre-anaesthetic evaluation.

METHODS

96 patients aged between 18 and 60 years undergoing day-care ENT surgeries for which pre-anaesthetic evaluation was done were included. Demographic data was obtained, thorough pre-anaesthetic evaluation and detailed clinical ENT examination were done. Nature of anaesthesia given, duration of the surgery and severity of the postoperative pain were recorded. Analgesic protocol undertaken during recovery period and associated symptoms were recorded.

RESULTS

Out of 96 patients 55 (57.29) were males and 41 (42.70 %) were females with a male to female ratio of 1.4:1. The mean age was 31.50 ± 4.15 years. 32 / 96 (33.33 %) ear surgeries, 26 / 96 (27.08 %) nose surgeries, 22 / 96 (22.91 %) throat surgeries and 16 / 96 (16.66 %) head and neck surgeries were performed. The smallest mean duration of surgery was 13.30 ± 02.5 minutes for removal of foreign body in the ear and the largest mean duration of surgery was for cortical mastoidectomy, 91.65 ± 6.20 minutes. Postoperative pain was present in 93 / 96 (96.87 %) of the patients varying from class I to class V of Verbal Pain Intensity Score (VPIS).

CONCLUSIONS

To manage patients undergoing day-care surgeries, efficient pre-anaesthetic evaluation is essential. It should include proper selection of patients, assessing the nature of surgery, analysis of comorbid conditions, counselling patients regarding type of anaesthesia and postoperative pain management. The postoperative pain and associated symptoms should be assessed and monitored periodically and should be managed by trained health care personnel to avoid unplanned overnight stays.

KEYWORDS

ENT, Anaesthesia, Day-Care Surgery, Complications, Pre-Anaesthetic Medication and Post-Operative Outcome

Corresponding Author:
Dr. Ushakumari P.R.,
Associate Professor,
Department of Anaesthesiology,
Government Medical College,
Thiruvananthapuram,
Kerala, India.
E-mail: cgjay@rediffmail.com

DOI: 10.18410/jebmh/2020/616

How to Cite This Article:
Jayachandran CG, James NS, Ushakumari PR. Effect of pre-anaesthetic evaluation on complication free outcome among day - care ENT surgeries in a tertiary care hospital. J Evid Based Med Healthc 2020; 7(50), 3016-3021. DOI: 10.18410/jebmh/2020/616

Submission 07-09-2020,
Peer Review 15-09-2020,
Acceptance 24-10-2020,
Published 14-12-2020.

BACKGROUND

An operative or invasive diagnostic procedure performed by surgeons in an operation theatre or surgical suite or specialised area with pre-anaesthetic check-up and immediate post procedural anaesthetic care and discharge on the same day without hospitalisation is termed as day-care surgery.[1] Day-care surgeries lessen the burden on the hospital bed occupancy and improve the output of the surgical services.[2,3] All patients of day-care surgeries are discharged the same day or within 24 hours after recovery.[4] The protocol of outpatient pre-anaesthetic check-up, choice of anaesthesia and postoperative anaesthetic care in the present study was similar to other studies.[5,6] In 1999, 90208 total cases were operated in AIIMS (All India Institute of Medical Sciences), New Delhi and among them 26.5 % were done in ENT, with most of the routine surgeries being done in the day-care OT (Operation Theatre).[3] Dabu-Bondoc S recommended that the patient should be healthy [American Society of Anaesthesiologists (ASA) Physical Status Class I].

Patients with well controlled chronic diseases such as bronchial asthma, diabetes mellitus, hypertension or epilepsy[7] could be included. In the process of evaluation apart from age of the patients, the physiological status and fitness should be considered in all, barring premature infants. Age above 80 years was also a factor attributing to higher postoperative risk.[8,9] Ambulatory surgery should be considered in obstructive sleep apnoea patients, who are treated with Positive Airway Pressure (PAP) therapy, especially if it is associated with controlled comorbid medical conditions. They should also be prepared to use a PAP device in the postoperative period.[10]

Using preoperative medication for sedation, amnesia and anxiolysis was not found to prolong the recovery time even in short ambulatory procedures.[11] These observations were supported by Cochrane review studies as to no difference in the time of discharge, on clinical assessment criteria in patients who received anxiolytic premedication undergoing day-care surgery.[12] Some recent studies have shown the negative impact on the perioperative experience of patients in whom anxiolytic-sedative agents are used. Hence, it was concluded that these anxiolytic drugs should be used cautiously in a minority of patients, only with absolute necessity.[13] With the scientific evidence found in the medical literature mentioned above a clinical study was conducted with an objective to estimate the proportion of complication free outcome among day-care ENT procedures following pre-anaesthetic evaluation.

METHODS

A prospective observational study was conducted in the Department of Anaesthesiology, Government Medical College Hospital, Thiruvananthapuram, Kerala, during a period of six months from January 2020 to June 2020 after obtaining Institutional Research Committee and Institutional Ethical Committee clearance. Pre-anaesthetic evaluation was done among 96 patients aged between 18 to 60 years attending the Department of ENT undergoing day-care surgeries. Ethical Committee approved written consent was obtained from all the selected patients.

Inclusion Criteria

1. Patients of both genders aged between 18 to 60 years.
2. Patients undergoing simple and common ENT surgeries.
3. American Society of Anesthesiologists, physical status class 1 patients.

Exclusion Criteria

1. Patients with inborn errors of metabolism were excluded.
2. Patients with active respiratory tract infections were excluded.
3. Patients undergoing complex surgical procedures with high risk of perioperative haemorrhage / fluid loss were excluded.
4. Chronic alcoholic patients.
5. Patients with difficult airway were excluded.
6. Patients with history of malignant hyperpyrexia were excluded.
7. Patients without telephonic communication and residing at a distant place (requiring more than 2 hours of journey) were excluded.

Sample Size

It was calculated taking the parent study analysis, in which there was an unexpected overnight admission of 13.4 % after day-care surgery. So, applying the formula, sample size $N = 4pq / d^2$, $N = 4 \times 86.6 \times 13.4 / (8.66)^2 = 61.89$; 96 patients who fulfilled the eligibility criteria were selected.

Sampling Procedure

All consecutive patients who met the eligibility criteria were included till the required sample size was attained.

Data Collection Technique

a. ENT procedures considered for day-care surgery in the hospital: Myringotomy, micro laryngeal surgery for benign lesions of the vocal cord like vocal nodules, cysts of vocal cord, fibromas or fibro angiomas, tonsillectomy, myringoplasty, septoplasty, fracture nasal bones reduction, ear lobule repair, cryo or electrocautery of turbinates or ulcers, minimal FESS (Functional Endoscopic Sinus Surgery), incision and drainage of mastoid abscess, biopsy of neck nodes, diagnostic direct laryngoscopy, foreign bodies in the nasal cavity, ears, pharynx, larynx and oesophagus for removal, tongue tie release, curettage for keratosis obturans, sialadeno-

endoscopy procedures and biopsies from ear, nose and throat regions.

b. Pre-Operative Physical Examination: A detailed clinical examination of the patient was done by ENT surgeon as well as the anaesthesiologists including all the systems. ASA classification was used to assess the physical status and class 1 patients were segregated.
c. Pre-Operative Investigations: All the patients were subjected to complete blood profile (haemoglobin, total count, differential count, ESR and platelet count), X-Ray chest PA (Postero-Anterior) view, ECG (Electro-Cardio-Gram), bleeding time, clotting time, fasting blood sugar, S. Creatinine, viral markers etc.
d. Anaesthesia: Premedication was a standard regime with Inj. Glycopyrrolate 10 mcg / kg, Inj. Fentanyl 1.5 mcg / kg with Inj. Ondansetron 100 mcg / kg IV slow before surgery. A standard infiltrative and / or topical, regional and / or general anaesthesia were used.
e. Surgical Techniques: Surgical techniques used regularly were instituted.
f. Postoperative Monitoring: Patients were monitored by trained personnel using Verbal Pain Intensity Score (VPIS) in the postoperative recovery room at 2 hourly intervals for 14 hours.
g. The routine analgesics used were Inj. Tramadol (50 mg / ml) IV, Inj. Fentanyl (50 micrograms / ml) IV or Inj. Paracetamol (750 mg / 75 ml) slow IV infusion along with an antiemetic Inj. Ondansetron (4 mg / 2 ml) IV.
h. Criteria for Discharge: 1. Stable vital signs for at least four hours. 2. Adequate analgesia. 3. No vomiting or vertigo. 4. Minor bleeds or discharge. 5. Orientation to person, place, time. 6. Successful fluid intake without vomiting. 7. No difficulty to micturate.
i. Operational Definition: After 14 hours of postoperative monitoring, patients who meet the criteria for successful discharge was taken as complication free outcome.

Statistical Analysis

Data were entered in Microsoft Excel and analysed using appropriate statistical software. Quantitative data expressed in percentage and chi square statistic was used to test the significance of occurrence of associated symptoms, qualitative data as proportions.

RESULTS

Among 96 patients studied there were 55 (57.29 %) males and 41 (42.70 %) females with a male to female ratio of 1.4:1. Age of the patients were tabulated in Table 1. It shows the youngest patient was aged 19 years and the eldest one was aged 60 years with a mean age of 31.50 ± 4.15 years. All the patients (100 %) belonged to the ASA class 1 type of physical status.

The different types of ear, nose, throat, head and neck day-care procedures performed in the study are tabulated in Table 2. 32 / 96 (33.33 %) ear surgeries, 26 / 96 (27.08 %) nose surgeries, 22 / 96 (22.91 %) throat surgeries and 16 / 96 (16.66 %) head and neck surgeries were performed in this study (Table 2). 57 / 96 (59.37 %) of the patients underwent the procedures under Local Anaesthesia (LA) using plain Lignocaine (2 %) or Lignocaine (2 %) with Adrenaline infiltration, 39 / 96 (40.62 %) patients underwent the procedures by General Anaesthesia (Table 2). The smallest mean duration of surgery was 13.30 ± 02.5 minutes for removal of foreign body in ear and the largest mean duration of surgery was for cortical mastoidectomy 91.65 ± 6.20 minutes (Table 2).

Observation	Frequency	Percentage
Age		
18 to 27	21	21.87
28 to 37	28	29.16
38 to 47	23	23.95
48 to 57	17	17.70
58 to 60	07	07.29
Marital Status		
Married	21	21.87
Unmarried	75	78.12
Education		
None	04	04.16
Primary	26	27.08
Secondary	38	39.58
Tertiary	28	29.16
Type of Surgery		
Ear	32	33.33
Nose	26	27.08
Throat	22	22.91
Head and Neck	16	16.66

Table 1. Demographic Data of the Patients (n - 96)

Postoperative pain was present in 93 / 96 (96.87 %) of the patients varying from class I to class V of Verbal Pain Intensity Score (VPIS). In addition to acute pain, associated patient symptoms during postoperative recovery period were analysed in this study and tabulated in Table 3. Nausea was observed in 17 (17.70 %), followed by vomiting in 11 (11.45 %), bleeding from surgical sites in 06 (06.25 %) and excessive sweating in 06 (06.25 %) patients. No specific treatment was given other than routine analgesics and supportive care in this study. To find the significance of incidence of associated symptoms following surgeries in the different regions of ENT, the chi square statistic was calculated. It was 0.8234 and p value was 0.843 which was not significant (p was taken significant at<0.05).The multi-variate analysis of the associated symptoms during postoperative recovery period was shown in Fig 1.

Out of 96 patients 11 / 96 (11.45 %) required overnight stay in the hospital due to persistence of their associated symptoms of nausea, vomiting, sedation and urinary retention. The remaining 85 / 96 (88.54 %) patients were discharged after 14 hours of stay in the hospital.

Type of Surgery	Total (%)	Procedures	Frequency (%)	LA 57 (59.37 %)	GA 39 (40.62 %)	Mean Duration of Surgery in Minutes
Ear	32 (33.33)	Myringotomy	04 (04.16)	03	01	20.30 ± 2.10
		Stapedectomy	04 (04.16)	04	00	55.25 ± 4.40
		Grommet insertion	05 (05.20)	03	02	22.50 ± 1.35
		Myringoplasty	04 (04.16)	04	00	67.40 ± 5.40
		Cortical Mastoidectomy	02 (02.08)	02	00	91.55 ± 6.20
		Tympanoplasty	04 (04.16)	04	00	87.45 ± 7.20
		Keratosis obturans	05 (05.20)	02	03	15.20 ± 1.10
		Foreign body removal	01 (01.04)	00	01	13.30 ± 2.15
		Osteoma of External ear or Mastoids	03 (03.12)	02	01	35.45 ± 2.10
Nose	26 (27.08)	Septoplasty	06 (06.25)	06	00	28.10 ± 2.30
		Fracture nasal bones reduction	04 (04.16)	04	00	21.30 ± 4.45
		FESS	06 (06.25)	04	02	72.50 ± 8.10
		Nasal polypectomy	07 (07.29)	05	02	67.45 ± 2.30
		Sinuscopy	03 (03.12)	03	00	16.10 ± 1.25
Throat	22 (22.91)	Tonsillectomy	05 (05.20)	00	05	31.50 ± 3.40
		Adenoidectomy	03 (03.12)	00	03	21.35 ± 3.10
		Benign tumours of vocal cord removal	03 (03.12)	00	03	18.20 ± 3.50
		Foreign body oesophagus removal	04 (04.16)	00	04	16.50 ± 2.10
		Diagnostic endoscopy under G.A.	04 (04.16)	00	04	14.50 ± 2.15
		Direct Laryngoscopy and biopsy	03 (03.12)	01	02	14.90 ± 2.15
Head and Neck	16 (16.66)	Lymph node biopsy	05 (09.37)	03	02	44.55 ± 4.55
		Small benign tumours of Thyroid Thyroglossal cyst excision	06 (07.29)	04	02	46.40 ± 3.55
			05 (09.37)	03	02	40.40 ± 6.10

Table 2. Types of Surgeries and Nature of Anaesthesia Followed to Undertake Ear, Nose, Throat, Head and Neck Day-Care Procedures (n - 96)

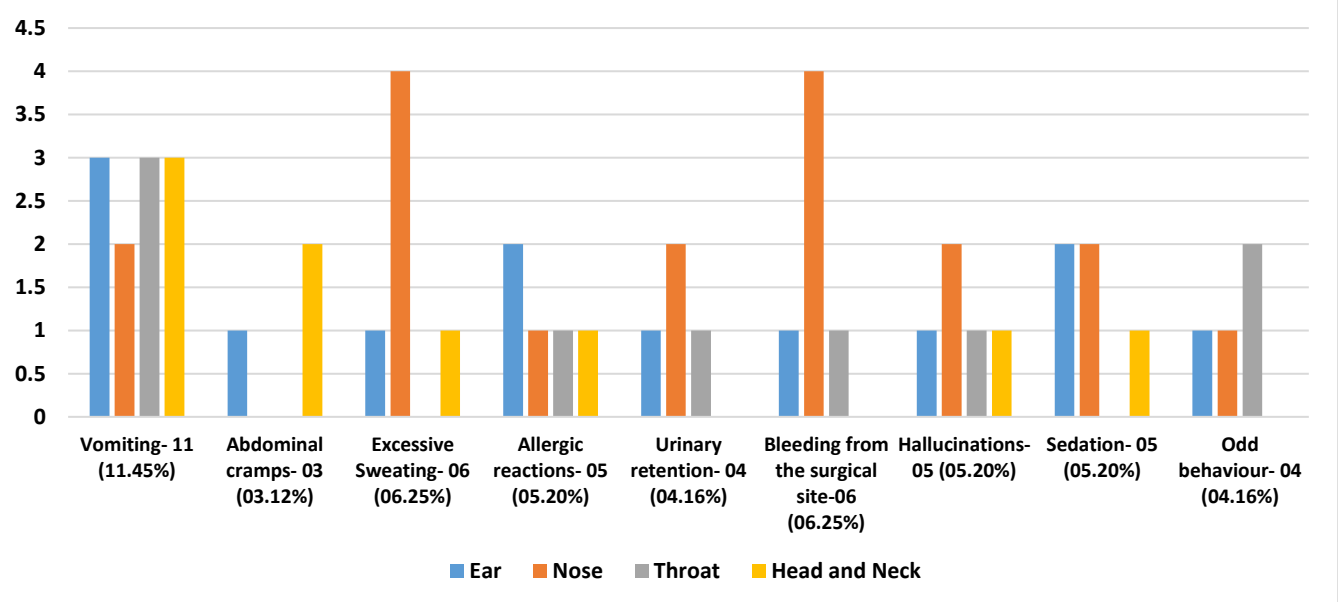

Figure 1. Multivariate Analysis of the Postoperative Associated Symptoms in the Study (n - 96)

Observation	Ear 19 / 32	Nose 22 / 26	Throat 14 / 22	Head and Neck 11 / 16	Patients with Extended Stay 11	P Value 0.843
Associated Symptoms						
Nausea- 17 (17.70 %)	06	04	05	02	02	0.863
Vomiting- 11 (11.45 %)	03	02	03	03	02	0.824
Abdominal cramps- 03 (03.12 %)	01	00	00	02	0	0.756
Excessive Sweating- 06 (06.25 %)	01	04	00	01	0	0.713
Allergic reactions- 05 (05.20 %)	02	01	01	01	02	0.955
Urinary retention- 04 (04.16 %)	01	02	01	00	02	0.928
Bleeding from the surgical site-06 (06.25 %)	01	04	01	00	01	0.983
Hallucinations- 05 (05.20 %)	01	02	01	01	01	0.979
Sedation- 05 (05.20 %)	02	02	00	01	01	0.920
Odd behaviour- 04 (04.16 %)	01	01	02	00	00	0.918

Table 3. Incidence of Associated Symptoms in the Study (n - 96)

DISCUSSION

96 patients aged between 18 to 60 years attending the department of ENT undergoing day-care surgeries who had undergone thorough pre-anaesthetic evaluation were selected. Analysis of the data showed that ENT day-care surgeries accounted for 13.02 % of the total surgery cases performed during the same period. A similar study by Amidyala Lingaiah et al[14] revealed that the percentage of day-care surgeries performed during a 2-year period was 9.50 %. In AIIMS during the year 1999, 26.5 % procedures were performed in ENT, with most of the routine surgeries being done in day-care OT. This incidence rate compared to Europe and USA studies[15] is low as nearly 32 % of the surgeries were day-care surgeries.[3]

There were 55 (57.29) males and 41 (42.70 %) females with a male to female ratio of 1.4:1. The youngest patient was aged 19 years and the eldest one was aged 60 years with a mean age of 31.50 ± 4.15 years. Thorough pre-anaesthetic assessment was done in this study and optimisations of risk factors were carried out through exclusion criteria. Duration of surgery was the most important criterion in selecting the patients for day-care surgery followed by the clinical status and presence of comorbidities. Surgeries lasting for up to 120 minutes can be considered for day-care surgery to avoid postoperative pain, complications and associated symptoms. The shortest duration of surgery was 13.30 ± 02.5 minutes for removal of foreign body in ear and longest duration was for cortical mastoidectomy 91.65 ± 6.20 minutes (Table 2). Among the surgical procedures performed, ear surgeries accounted for 32 / 96 (33.33 %) of total cases. Myringotomy, stapedectomy, grommet insertion, myringoplasty, cortical mastoidectomy, tympanoplasty, keratosis obturans by curettage and foreign body removal were among the ear surgeries performed. Majority of them were performed under local anaesthesia and sedation alone. In a similar study Singh et al[16] also performed ear surgeries as 40.7 % of total cases. Whereas in Canada and USA the ear surgeries are performed as day-care procedures under local infiltration anaesthesia are uncommon.[17,18]

In the present study 57 / 96 (59.37 %) of the patients underwent the procedures under Local Anaesthesia (LA) using plain Lignocaine (2 %) or Lignocaine (2 %) with Adrenaline infiltration, 39 / 96 (40.62 %) patients underwent the procedures by General Anaesthesia (Table 2). Concluding from their study, Levy N, Mills P, Mythen M[19] opined that anaesthetic techniques (G.A, Regional Anaesthesia and Monitored Anaesthesia), multimodal analgesia and antiemetic therapy have a significant role in the postoperative recovery and discharge.

They also concluded that such regimes would minimise the individual drug side effects and Postoperative Nausea and Vomiting (PONV) and improve the quality of recovery. In the present study also, multimodal analgesia was used to alleviate postoperative pain. In this study premedication was a standard regime with Inj. Glycopyrrolate 10 mcg / kg, Inj. Fentanyl 1.5 mcg / kg with Inj. Ondansetron 100 mcg / kg IV slow before surgery. It was observed that using preoperative opioids was not associated with clinically significant delay in recovery times even after short ambulatory procedures. A similar study by Harsoor S. concluded that using opioids preoperatively for sedation has no effect on postoperative recovery, causing delay in recovery or sedation. Postoperative pain was present in 93 / 96 (96.87 %) of the patients varying from class I to class V of VPIS. Knottenbelt et al 2007, Rastogi and Vickers 2009 are of the similar opinion from their studies that the pain should be assessed at regular intervals postoperatively with verbal pain scores.[20,21]

Postoperative pain was managed by opioid analgesics and antiemetic drugs according to the planned protocol in this study. However, Ng and Vickers 2013[22] are of the opinion that the use of opioids should be protocol based to alleviate pain in the recovery period. Associated nausea and vomiting together with pain are the risk factors increasing the likelihood of delayed discharge from the hospital. Nausea was observed in 17 (17.70 %), followed by vomiting in 11 (11.45 %), bleeding from surgical sites in 06 (06.25 %) and excessive sweating in 06 (06.25 %) patients. No specific treatment was given other than postoperative analgesia protocol followed in this study. To find the significance of incidence of associated symptoms in the different regions of ENT surgeries, the chi square statistic was calculated. It was 0.8234 and p value was 0.843 which was not significant (p was taken significant at < 0.05). Out of 96 patients 11 / 96 (11.45 %) required overnight stay in the hospital due to persistence of their associated symptoms of nausea, vomiting, sedation and urinary retention and were managed with supportive care. Postoperative pain was treated with routine analgesics. The remaining 85 / 96 (88.54 %) patients were discharged after 14 hours of stay in the hospital. To effectively manage day-care ENT surgeries, thorough pre-anaesthetic evaluation and meticulous postoperative pain management are essential. It was concluded from this study that identifying the causes for delayed discharge of the patients should be predicted during pre-anaesthetic evaluation itself.

CONCLUSIONS

To manage patients undergoing day-care surgeries, efficient pre-anaesthetic evaluation is essential. It should include proper selection of patients, correct identification of nature of surgery, avoidance of comorbid conditions, counselling patients regarding type of anaesthesia and postoperative pain management. Selecting patients with ASA class 1 type of physical status resulted in a discharge rate of 88.54% of the patients. The postoperative pain and associated symptoms should be assessed and monitored periodically and should be managed by trained health care personnel to avoid unplanned overnight stays.

Data sharing statement provided by the authors is available with the full text of this article at jebmh.com.
Financial or other competing interests: None.
Disclosure forms provided by the authors are available with the full text of this article at jebmh.com.

REFERENCES

[1] Attachment A to Performance of Ambulatory (SAME DAY) Surgery. Department of Veterans Affairs. Veterans Health Administration. VHA Directive 96-046. Washington, DC 20420. July 16, 1996.

[2] Reed WA, Ford JL. Development of an independent outpatient surgical centre. Outpatient Anaesthesia 1976;14(2):213-220.

[3] Nagarajan SS, Sarma RK, Deka RC. The costing of common otologic surgical procedures so as to develop standard approach for introduction of a package system of charging the patients. Journal of the Academy of Hospital Administration 2000;12(2):61-63.

[4] Dawson B, Reed WA. Anaesthesia for adult surgery outpatients. Can Anaesth Soc J 1990;87:1409-1411.

[5] Srinivasan V, Arasaratnam RB, Jankelowitz GA. Day-case septal surgery under general anaesthesia and local anaesthesia with sedation. J Laryngol Otol 1995;109(7):614-617.

[6] Nieminen P, Silvola J, Aust R, et al. Nasal Septal Surgery as an outpatient procedure. J Laryngol Otol 1997;111:1034-1037.

[7] Dabu-Bondoc S, Shelley KH. Management of comorbidities in ambulatory anesthesia: a review. Ambul Anesth 2015;2:39-51.

[8] Whippey A, Kostandoff G, Paul J, et al. Predictors of unanticipated admission following ambulatory surgery: a retrospective case-control study. Can J Anaesth 2013;60(7):675-683.

[9] Fleisher LA, Pasternak LR, Herbert R, et al. Inpatient hospital admission and death after outpatient surgery in elderly patients: Importance of patient and system characteristics and location of care. Arch Surg 2004;139(1):67-72.

[10] Joshi GP. Patients with obstructive sleep apnea for ambulatory surgery: challenges and management. Curr Anesthesiol Rep 2014;4:284-289.

[11] Harsoor SS. Changing concepts in anaesthesia for day care surgery. Indian J Anaesth 2010;54(6):485-488.

[12] Walker KJ, Smith AF. Premedication for anxiety in adult day surgery. Cochrane Database Syst Rev 2009;2009(4):CD002192.

[13] Bucx MJL, Krijtenburg P, Kox M. Preoperative use of anxiolytic-sedative agents; are we on the right track? J Clin Anesth 2016;33:135-140.

[14] Amidyala L, Padam V, Mridula RK, et al. Types of various surgeries in Day Care: a study from South India. Ambulatory Surgery 2015;21(1):345-348.

[15] The British Association of Day Surgery. BADS Directory of Procedure. 3rd edn. London: BADS 2009: p. 87-88.

[16] Singh VP, Kalra SP. Day Care surgery in otolaryngology: a three-year prospective study. Med J Armed Forces India 2004;60(1):31-34.

[17] Eskander A, Campisi P, Witterick IJ, et al. Consultation diagnoses and procedures billed among recent graduates practicing general otolaryngology – head & neck surgery in Ontario, Canada. J Otolaryngol Head Neck Surg 2018;47(1):47.

[18] Marom T, Tan A, Wilkinson GS, et al. Trends in otitis media-related health care use in the United States, 2001-2011. JAMA Pediatr 2014;168(1):68-75.

[19] Levy N, Mills P, Mythen M. Is the pursuit of DREAMing (drinking, eating and mobilising) the ultimate goal of anaesthesia? Anaesthesia 2016;71(9):1008-1012.

[20] Knottenbelt G, van der Westhuizen J, Griffith N. Postoperative analgesia and discharge criteria for day surgery. Anaesthesia and Intensive Care Medicine 2007;8(3):122-125.

[21] Rastogi S, Vickers AP. Postoperative analgesia and discharge criteria for day surgery. Anaesthesia and Intensive Care Medicine 2009;11(4):153-156.

[22] Ng YMA, Vickers AP. Postoperative analgesia and discharge criteria for day surgery. Anaesthesia and Intensive Care Medicine 2013;14(3):110-113.