Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): September 2026 Issue
https://doi.org/10.51168/ycz1q336
Original Article

Intracuff 2% lignocaine versus topical 2% lignocaine jelly for postoperative sore throat, hoarseness, and emergence cough after general anaesthesia: a prospective randomised comparative study.

Dr. Bandela Raju[1*], Dr. Suryakumari. Malothu[1], Dr. Sireesh Kumar Pannati[2]

[1]Assistant Professor, Department of Anesthesiology, Government Medical College and Government General Hospital, Narsampet, Telangana, India
[2]Assistant Professor, Department of Anesthesiology, Government Medical College and Government General Hospital, Mahabubabad, Telangana, India

Abstract

Background

Postoperative sore throat, hoarseness, and cough affect recovery after tracheal intubation. The clinical effect of lignocaine depends on its formulation and route of administration.

Objectives

To compare intracuff 2% lignocaine with topical 2% lignocaine jelly for postoperative airway symptoms in adults undergoing elective general anaesthesia.

Methods

This prospective randomised comparative study included 100 patients undergoing elective surgery at Osmania Medical College and Osmania General Hospital, Hyderabad. Participants were randomly allocated by lottery into two groups: intracuff 2% lignocaine (Group A, n = 50) and topical 2% lignocaine jelly (Group B, n = 50). Postoperative sore throat and hoarseness were evaluated at 1, 6, 12, and 24 hours, while emergence cough was assessed following extubation. Categorical outcomes were compared using chi-square or Fisher's exact tests.

Results

At 1hour, postoperative sore throat was significantly less frequent in Group A than in Group B (28% versus 50%; risk ratio [RR] = 0.56; 95% confidence interval [CI]: 0.33–0.95; p = 0.024). At 6 hours (16% versus 30%; p = 0.096), 12 hours (10% versus 20%; p = 0.161), and 24 hours (2% versus 4%; p = 1.000), differences were not statistically significant. Emergence cough occurred in 42% and 50% of patients, respectively (RR = 0.84; 95% CI: 0.55–1.29; p = 0.422). Hoarseness at 1 hour was 16% versus 28% (p = 0.148), without a statistically significant difference.

Conclusion

Intracuff lignocaine showed a nominal early sore-throat advantage, without demonstrated sustained benefit or significant differences in cough or hoarseness. Multiple assessments and inconsistent outcome summaries limit inference.

Recommendations

Further multicentre randomized studies with larger sample sizes are recommended to confirm whether intracuff 2% lignocaine provides a consistent reduction in postoperative sore throat. Future studies should use standardized definitions and uniform grading systems for sore throat, hoarseness, and emergence cough at predefined time point

Keywords: *Lignocaine; lidocaine; endotracheal intubation; postoperative sore throat; hoarseness; emergence cough; general anaesthesia.*
Submitted date: *July 09, 2026* ***Accepted date:*** *August 21, 2026* ***Publication month***: *September 30, 2026*

Corresponding Author: ***Dr. Bandela Raju***
Email Id: bandelaraju.8888@gmail.com
Assistant Professor, Department of Anesthesiology, Government Medical College and Government General Hospital, Narsampet, Telangana, India

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): September 2026 Issue
https://doi.org/10.51168/ycz1q336
Original Article

Introduction

Postoperative sore throat is a frequent consequence of general anaesthesia with endotracheal intubation and contributes to discomfort during otherwise uncomplicated recovery. Patients also report altered voice quality and cough, symptoms that interfere with communication, swallowing, and rest. Although these complaints usually resolve, their prevention remains relevant to perioperative quality of care. A systematic review identified substantial variation in reported incidence and emphasized the interaction between patient characteristics, airway devices, and anaesthetic practice.[1] Mechanical injury, mucosal inflammation, and pressure at the tube–trachea interface provide a clinical basis for preventive interventions.[2]

Airway morbidity does not arise from one mechanism alone. Laryngoscopy, tube passage, cuff inflation, suctioning, and extubation expose different parts of the airway to irritation. In a large clinical investigation, Chen and colleagues identified associations with sex, age, surgical site, nitrous oxide exposure, and anaesthesia duration.[3] Tube diameter is another modifiable factor. A randomized study in women found less early sore throat with a smaller endotracheal tube, illustrating the importance of controlling mechanical influences when evaluating pharmacological prevention.[4] These findings support an approach that considers both airway handling and local symptom suppression.

Lignocaine, also termed lidocaine, is an amide local anaesthetic used in several airway applications. Filling the endotracheal cuff with lignocaine offers a reservoir from which drug can diffuse toward the adjacent mucosa. Navarro and Baughman reported reduced postoperative sore throat with this approach.[5] However, Porter and colleagues found similar outcomes when cuffs were inflated with lignocaine, saline, or air.[6] Such differences indicate that cuff material, drug preparation, exposure time, and outcome measurement influence clinical results. A comparison of several delivery methods also demonstrated that intracuff and intravenous administration performed differently from topical spray or jelly.[7]

Topical 2% lignocaine jelly is readily applied to the endotracheal tube before insertion. Its lubricating function and direct contact with mucosal surfaces offer practical advantages, but symptomatic benefit cannot be assumed. Lee and colleagues observed greater sore-throat incidence with jelly applied to a tapered cuff than with saline lubrication.[8] Intracuff alkalinization improves drug diffusion and has reduced emergence symptoms in clinical trials.[9,10] Nevertheless, pooled evidence requires careful interpretation because study quality, delivery route, and assessment methods differ across investigations.[11,12] Evidence specific to non-alkalinized intracuff lignocaine versus topical jelly is therefore clinically useful, particularly in routine elective practice.

The objective of this study was to compare intracuff 2% lignocaine hydrochloride with topical 2% lignocaine jelly in adults undergoing elective general anaesthesia with endotracheal intubation. The evaluated outcomes were postoperative sore-throat incidence and severity at 1, 6, 12, and 24 hours, emergence-cough grades, and postoperative hoarseness. The study also described the demographic and comorbidity profiles of the two treatment groups.

Methodology

Study design, setting

This prospective randomised comparative study was conducted in the Department of Anaesthesiology, Osmania Medical College and Osmania General Hospital, Hyderabad, Telangana, India, over a period of 24 months, from 1 January 2022 to 31 December 2023. The study compared the effectiveness of intracuff 2% lignocaine and topical 2% lignocaine jelly in reducing postoperative sore throat, hoarseness of voice, and emergence cough among adult patients undergoing elective surgery under general anaesthesia with endotracheal intubation.

Study Population

The study population comprised adult patients aged 18–60 years scheduled for elective surgical procedures under general anaesthesia requiring endotracheal intubation. Patients with American Society of Anesthesiologists (ASA) physical status I–II and Mallampati airway grades I–II were considered eligible based on predefined inclusion and exclusion criteria.

Eligible criteria

Inclusion Criteria

Adults aged 18–60 years. Patients scheduled for elective surgery under general anaesthesia requiring endotracheal intubation. Patients with ASA physical status I–II. Patients with Mallampati airway grades I–II.

Exclusion Criteria

Patients undergoing emergency surgical procedures. Patients with an anticipated surgical duration exceeding six hours. Patients with difficult airways or restricted mouth opening. Patients with altered sensorium or raised intracranial pressure. Patients with ASA physical status III or higher. Patients with uncontrolled hypertension or clinically significant comorbidities associated with increased perioperative risk.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): September 2026 Issue
https://doi.org/10.51168/ycz1q336
Original Article

Participants

The study included 100 adult patients aged 18–60 years who were scheduled to undergo elective surgical procedures under general anaesthesia requiring endotracheal intubation at Osmania Medical College and Osmania General Hospital, Hyderabad, Telangana. Patients with American Society of Anesthesiologists (ASA) physical status I–II and Mallampati airway grades I–II who fulfilled the predefined eligibility criteria were included. Participants were randomly allocated using the lottery method into two equal groups of 50 patients each. Group A received intracuff 2% lignocaine, whereas Group B received topical 2% lignocaine jelly. Both groups were evaluated for postoperative sore throat, hoarseness of voice, and emergence cough to compare the effectiveness of the two interventions.

Sample Size and Sampling Method

A total of 100 eligible patients were enrolled during the study period. The sample size was determined before recruitment based on the anticipated difference in postoperative sore throat between the two interventions, considering the required statistical power and significance level. Participants were randomly allocated using the lottery method into two equal groups of 50 patients each. Group A received intracuff 2% lignocaine, whereas Group B received topical 2% lignocaine jelly.

Preoperative assessment and anaesthetic management

Clinical assessment included demographic details, comorbidities, airway examination, routine blood investigations, electrocardiography, and chest radiography. Standard monitoring comprised noninvasive blood pressure, electrocardiography, and pulse oximetry. Premedication included glycopyrrolate 5–10 µg/kg, ondansetron 0.08 mg/kg, midazolam 0.04 mg/kg, and fentanyl 2 µg/kg. Propofol 2 mg/kg and succinylcholine 2 mg/kg were used for induction and intubation. Anaesthesia was maintained with isoflurane in oxygen and intermittent atracurium.

Study Interventions and Recovery

Participants in Group A received 2% lignocaine solution instilled into the cuff of a high-volume, low-pressure endotracheal tube after confirmation of correct tube placement. In Group B, 2% lignocaine jelly was applied topically over the endotracheal tube cuff before intubation, after which the cuff was inflated with air. Endotracheal cuff pressure was maintained within the reported range of 18–25 mmHg. The two techniques therefore represented distinct routes of lignocaine administration for attenuation of postoperative airway symptoms. [7,9] At the completion of surgery, residual neuromuscular blockade was reversed with intravenous neostigmine 0.05 mg/kg and glycopyrrolate 0.01 mg/kg. Patients were extubated when fully awake after a single episode of oral suctioning. Postoperative analgesia consisted of paracetamol 15 mg/kg administered every six hours.

Outcome Assessment

The study evaluated three principal postoperative outcomes: sore throat, hoarseness of voice, and emergence cough.

Postoperative Sore Throat

The incidence and severity of postoperative sore throat were assessed at 1, 6, 12, and 24 hours following extubation. Sore-throat severity was evaluated using a visual analogue approach, although the exact score range and units require confirmation from the original study records.

Emergence Cough

Cough occurring during emergence from general anaesthesia was assessed using the following grading system.

Grade 0: No cough.

Grade I: Cough lasting less than 15 seconds.

Grade II: Cough lasting more than 15 seconds.

Hoarseness of Voice

Postoperative hoarseness was assessed at 1, 6, 12, and 24 hours using a four-point grading system:

Grade 0: No hoarseness.

Grade I: Minimal hoarseness.

Grade II: Moderate hoarseness.

Grade III: Severe hoarseness.

The incidence and severity of postoperative airway symptoms were compared between the two intervention groups.

Bias

Potential sources of bias in this prospective randomised comparative study included selection bias, performance

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): September 2026 Issue
https://doi.org/10.51168/ycz1q336
Original Article

bias, detection bias, and reporting bias. Although participants were allocated using the lottery method, the absence of documented allocation concealment introduces uncertainty regarding selection bias. The lack of reported blinding of participants, anaesthesiologists, and outcome assessors increases the risk of performance and detection bias, particularly because postoperative sore throat and hoarseness were assessed using subjective measures. Variations in airway manipulation, endotracheal cuff pressure, and duration of intubation could also influence postoperative outcomes. Furthermore, inconsistencies in the reported 24-hour hoarseness data and insufficient clarification of sore-throat severity scores limit the reliability of outcome interpretation. The single-centre design and relatively small sample size further restrict the generalisability and precision of the findings.

Statistical analysis

Original analyses used SPSS version 22. Categorical comparisons were recalculated from aggregate counts using two-sided Pearson chi-square tests without continuity correction, or Fisher exact tests when expected counts were below five. Risk ratios with log-method 95% confidence intervals were calculated. Nominal significance was $p < 0.05$.

Ethical Considerations

The study was approved by Institutional Ethics Committee, Osmania Medical College and Osmania General Hospital, Hyderabad, Telangana. Written informed consent was obtained from all participants before enrolment. Participants were informed about the study objectives, procedures, potential benefits, and possible risks. Confidentiality of personal and clinical information was maintained throughout the study. Participation was entirely voluntary, and participants were free to withdraw at any stage without affecting their routine medical care.

Results

Participant characteristics

The analysis included 100 patients, with 50 in each group. Men accounted for 68% of Group A and 64% of Group B ($p = 0.673$). The largest age category was 28–37 years in both groups (32% each); the age-category distributions did not differ significantly ($p = 0.768$). Diabetes mellitus was reported in 14% and 16%, respectively. Baseline characteristics are presented in Table 1.

Table 1: Baseline demographic and clinical characteristics

Characteristic	Group A (n = 50)	Group B (n = 50)	Total (N = 100)
Male	34 (68)	32 (64)	66 (66)
Female	16 (32)	18 (36)	34 (34)
Age 18–27 years	12 (24)	8 (16)	20 (20)
Age 28–37 years	16 (32)	16 (32)	32 (32)
Age 38–47 years	7 (14)	11 (22)	18 (18)
Age 48–57 years	9 (18)	8 (16)	17 (17)
Age >58 years	6 (12)	7 (14)	13 (13)
Diabetes mellitus	7 (14)	8 (16)	15 (15)
Hypertension	4 (8)	6 (12)	10 (10)
Hypothyroidism	1 (2)	1 (2)	2 (2)
Hyperthyroidism	2 (4)	1 (2)	3 (3)
Hepatitis C	4 (8)	1 (2)	5 (5)
Asthma	2 (4)	3 (6)	5 (5)
Breast carcinoma	1 (2)	0 (0)	1 (1)
No known comorbidity	29 (58)	30 (60)	59 (59)

Note. Values are n (%). Group A: intracuff lignocaine; Group B: topical lignocaine jelly

Reported mean ages were 39.29 ± 7.41 and 41.22 ± 6.56 years.

Incidence of postoperative sore throat At 1 hour, sore throat occurred in 14 patients (28%) in Group A and 25 (50%) in Group B. The absolute difference was 22 percentage points, and the risk ratio was 0.56 (95% CI 0.33–0.95; $p = 0.024$). Although Group A had lower incidences at all later assessments, the differences at 6, 12, and 24 hours were not statistically significant. Time-specific sore-throat outcomes are shown in Table 2.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): September 2026 Issue
https://doi.org/10.51168/ycz1q336
Original Article

Table 2: Postoperative sore throat by assessment time

Assessment	Group A n (%)	Group B n (%)	Risk ratio (95% CI)	p
1 hour	14 (28)	25 (50)	0.56 (0.33, 0.95)	0.024
6 hours	8 (16)	15 (30)	0.53 (0.25, 1.14)	0.096
12 hours	5 (10)	10 (20)	0.50 (0.18, 1.36)	0.161
24 hours	1 (2)	2 (4)	0.50 (0.05, 5.34)	1.000†

Note. Each group contains 50 patients. Risk ratios compare Group A with Group B. Pearson chi-square tests were used except †Fisher exact test. Confidence intervals use the log method and are imprecise with sparse events

Severity of postoperative sore throat

The reported mean severity scores were lower in Group A at all four assessments. Group A values ranged from 0.4 to 0.6, whereas Group B values increased from 1.1 to 2.1. The reported severity summaries are presented in Table 3.

Table 3: Reported sore throat severity summaries

Assessment	Group A mean ± SD	Group B mean ± SD
1 hour	0.4 ± 0.1	1.1 ± 1.0
6 hours	0.5 ± 0.2	1.6 ± 0.5
12 hours	0.6 ± 0.1	1.9 ± 0.6
24 hours	0.6 ± 0.1	2.1 ± 0.6

Emergence cough

Emergence cough was absent in 29 patients (58%) in Group A and 25 (50%) in Group B. Grade I cough occurred in 22% versus 28%, and grade II cough in 20% versus 22%. The overall grade distribution did not differ significantly ($\chi^2 = 0.704$; $p = 0.703$). Any cough occurred in 42% versus 50% (risk ratio 0.84; 95% CI 0.55–1.29; $p = 0.422$). Cough grades are presented in Table 4.

Table 4: Emergence cough grades

Cough grade	Group A n (%)	Group B n (%)
0 Absent	29 (58)	25 (50)
I Under 15 seconds	11 (22)	14 (28)
II Over 15 seconds	10 (20)	11 (22)
Any cough	21 (42)	25 (50)

Note. Each group contains 50 patients. Grade-distribution $p = 0.703$ by Pearson chi-square; any-cough $p = 0.422$.

Hoarseness of voice

Time-specific hoarseness was recorded less frequently in Group A, but none of the recalculated comparisons was statistically significant. At 1 hour, the incidences were 16% versus 28% ($p = 0.148$); at 24 hours, they were 6% versus 10% ($p = 0.715$). The time-specific counts are shown in Table 5

Table 5: Time specific incidence of hoarseness

Assessment	Group A n (%)	Group B n (%)	Risk ratio (95% CI)	p
1 hour	8 (16)	14 (28)	0.57 (0.26, 1.24)	0.148
6 hours	6 (12)	11 (22)	0.55 (0.22, 1.36)	0.183
12 hours	4 (8)	7 (14)	0.57 (0.18, 1.83)	0.338
24 hours	3 (6)	5 (10)	0.60 (0.15, 2.38)	0.715†

Note. Each group contains 50 patients. Pearson chi-square tests were used except †Fisher exact test.

In the separate 24-hour grading summary, 41 patients (82%) in Group A and 38 (76%) in Group B had no hoarseness; severe hoarseness was reported in one patient in each group. Grades 1–3 imply any-hoarseness counts of 9 and 12, which differ from the time-specific counts of 3 and 5. Both summaries are retained separately, and no definitive 24-hour hoarseness effect is inferred. The grade distribution is presented in Table 6.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): September 2026 Issue
https://doi.org/10.51168/ycz1q336
Original Article

Table 6: Reported hoarseness grades at 24 hours

Hoarseness grade	Group A n (%)	Group B n (%)
0 Absent	41 (82)	38 (76)
1 Minimal	6 (12)	10 (20)
2 Moderate	2 (4)	1 (2)
3 Severe	1 (2)	1 (2)
Any hoarseness from grades	9 (18)	12 (24)

Note. Each group contains 50 patients. Sparse grade cells preclude a reliable asymptotic comparison. Collapsing grades 1–3 yields p = 0.461

Discussion

The principal finding was a lower incidence of sore throat at 1 hour with intracuff lignocaine than with topical jelly: 28% versus 50%, corresponding to a risk ratio of 0.56. The subsequent differences were smaller in absolute terms and statistically nonsignificant. Thus, the categorical results support an early signal rather than sustained superiority. Because four sore-throat assessments were examined without multiplicity correction, the nominal p-value of 0.024 warrants cautious interpretation. Cough and hoarseness comparisons did not establish a treatment advantage.

The early sore-throat pattern is compatible with a local effect of lignocaine delivered across the cuff membrane. Navarro and Baughman demonstrated benefit with intracuff delivery, while Soltani and Aghadavoudi found that the application route influenced postoperative symptoms.[5,7] However, Porter and colleagues did not identify a difference between lignocaine, saline, and air.[6] These contrasting findings prevent a uniform efficacy claim. Differences in tube characteristics, duration of mucosal exposure, and anaesthetic management offer plausible explanations for variation across studies, although none was directly tested here.

The comparison with topical jelly also deserves attention. Lee and colleagues reported increased sore throat after jelly lubrication of tapered cuffs.[8] Consequently, a relative advantage over jelly does not establish the magnitude of benefit against saline or standard care. The absence of an untreated or saline comparator limits attribution of the present difference to pharmacological protection alone. Appropriate tube sizing remains important, as demonstrated by Jaensson and colleagues, and careful airway instrumentation is recommended in established reviews.[2,4]

Alkalinized intracuff lignocaine has shown benefits in individual trials and pooled analyses.[9–11,13] The present intervention was not described as alkalinized, so those effect estimates are not directly transferable. Peng and colleagues also reported reduced coughing with intracuff lignocaine compared with air or saline.[14] Here, any cough occurred in 42% versus 50%, with a confidence interval encompassing benefit and no effect. Sample size and the active comparator constrain this interpretation. Tanaka and colleagues emphasized that study quality and outcome measurement influence the apparent effect of lignocaine.[12]

Measurement reliability is particularly relevant to the remaining outcomes. Discordant 24-hour hoarseness totals prevent a definitive endpoint estimate. The reported pain-score means and standard deviations also require clarification before inferential analysis

Generalizability

The findings may be applicable to adult patients aged 18–60 years with ASA physical status I–II undergoing elective surgery under general anaesthesia with endotracheal intubation. However, extrapolation to emergency procedures, prolonged surgeries, patients with difficult airways, and those with significant systemic comorbidities should be made cautiously. The single-centre setting may also limit broader applicability. Variations in airway management practices, cuff-pressure monitoring, and postoperative analgesic protocols across institutions may influence outcomes. Multicentre studies involving more diverse surgical populations are warranted to improve external validity.

Conclusion

Intracuff 2% lignocaine was associated with a lower incidence of postoperative sore throat during the early postoperative period compared with topical 2% lignocaine jelly in adults undergoing elective surgery under general anaesthesia. These findings suggest that intracuff lignocaine may provide modest early protection against airway-related discomfort after endotracheal intubation. Larger, adequately powered multicentre studies with standardized outcome assessment are needed to confirm the magnitude and duration of this effect.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): September 2026 Issue
https://doi.org/10.51168/ycz1q336
Original Article

Limitations

This study has several limitations. The single-centre design and convenience recruitment may limit the representativeness and external validity of the findings. The modest sample size of 50 participants per group reduced the statistical power to detect smaller differences in postoperative hoarseness and emergence cough. Allocation concealment and assessor blinding were not described, which may have introduced selection or assessment bias. In addition, variations in cuff-pressure monitoring and the absence of detailed reporting of the exact lignocaine and jelly quantities may affect reproducibility. The relatively short 24-hour follow-up also limits assessment of symptoms persisting beyond the early postoperative period.

Recommendations

Intracuff 2% lignocaine may be considered as a simple strategy to reduce early postoperative sore throat in appropriately selected patients undergoing endotracheal intubation. Standardized cuff-pressure monitoring and uniform airway-management protocols should be followed to minimize postoperative airway symptoms. Larger multicentre randomized studies with adequate blinding, longer follow-up, and standardized assessment of sore throat, hoarseness, and emergence cough are recommended to confirm these findings.

Acknowledgements

We thank the patients who participated in this study and contributed to the assessment of postoperative airway symptoms. We acknowledge the clinical setting provided by the Department of Anaesthesiology, Osmania Medical College and Osmania General Hospital, Hyderabad. Individual acknowledgements and permission to name contributors will be finalized by the authors.

Abbreviations

ASA: American Society of Anesthesiologists:

CI: confidence interval;

ETT: endotracheal tube;

GA: general anaesthesia;

PACU: postanaesthesia care unit;

POST: postoperative sore throat;

RR: risk ratio; SD: standard deviation;

SPSS: Statistical Package for the Social Sciences;

VAS: visual analogue scale.

Funding

The Study has not received any Funding

Conflict of Interest

The Authors Declare No Conflict of Interest.

Data Availability

Data is Available on Request.

Author Contributions

Dr. Bandela Raju: Conceptualisation, study design, methodology, participant recruitment, perioperative data collection, and original manuscript drafting.

Dr. Suryakumari Malothu: Methodology, study supervision, interpretation of findings, critical review, and manuscript editing.

Dr. Sireesh Kumar Pannati: Clinical data acquisition, literature review, data interpretation, and manuscript revision.

Author Biographies

Dr. Bandela Raju is an Assistant Professor in the Department of Anesthesiology, Government Medical College and Government General Hospital, Narsampet, Telangana, India. His academic interests include perioperative medicine, airway management, postoperative recovery, and clinical anaesthesia research.

Dr. Suryakumari Malothu is an Assistant Professor in the Department of Anesthesiology, Government Medical College and Government General Hospital, Narsampet, Telangana, India. Her professional interests include airway management, perioperative anaesthesia, postoperative complications, and evidence-based clinical research.

Dr. Sireesh Kumar Pannati is an Assistant Professor in the Department of Anesthesiology, Government Medical College and Government General Hospital, Mahabubabad, Telangana, India. His areas of interest include general anaesthesia, perioperative patient safety, airway-related complications, and clinical research in anaesthesiology.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): September 2026 Issue
https://doi.org/10.51168/ycz1q336
Original Article

References

1. El-Boghdadly K, Bailey CR, Wiles MD. Postoperative sore throat: a systematic review. Anaesthesia. 2016;71(6):706-17. doi:10.1111/anae.13438. https://doi.org/10.1111/anae.13438 PMid:27158989

2. McHardy FE, Chung F. Postoperative sore throat: cause, prevention and treatment. Anaesthesia. 1999;54(5):444-53. doi:10.1046/j.1365-2044.1999.00780.x. https://doi.org/10.1046/j.1365-2044.1999.00780.x PMid:10995141

3. Chen KT, Tzeng JI, Lu CL, Liu KS, Chen YW, Hsu CS, et al. Risk factors associated with postoperative sore throat after tracheal intubation: an evaluation in the postanesthetic recovery room. Acta Anaesthesiol Taiwan. 2004;42(1):3-8. https://doi.org/10.1016/j.aat.2011.01.001 https://doi.org/10.1016/S1875-4597(10)60002-1

4. Jaensson M, Olowsson LL, Nilsson U. Endotracheal tube size and sore throat following surgery: a randomized-controlled study. Acta Anaesthesiol Scand. 2010;54(2):147-53. doi:10.1111/j.1399-6576.2009.02166.x. https://doi.org/10.1111/j.1399-6576.2009.02166.x PMid:19930246

5. Navarro RM, Baughman VL. Lidocaine in the endotracheal tube cuff reduces postoperative sore throat. J Clin Anesth. 1997;9(5):394-7. doi:10.1016/S0952-8180(97)00068-8. https://doi.org/10.1016/S0952-8180(97)00068-8 PMid:9257206

6. Porter NE, Sidou V, Husson J. Postoperative sore throat: incidence and severity after the use of lidocaine, saline, or air to inflate the endotracheal tube cuff. AANA J. 1999;67(1):49-52.

7. Soltani HA, Aghadavoudi O. The effect of different lidocaine application methods on postoperative cough and sore throat. J Clin Anesth. 2002;14(1):15-8. doi:10.1016/S0952-8180(01)00344-0. https://doi.org/10.1016/S0952-8180(01)00344-0 PMid:11880016

8. Lee J, Lee YC, Son JD, Lee JY, Kim HC. The effect of lidocaine jelly on a taper-shaped cuff of an endotracheal tube on the postoperative sore throat: a prospective randomized study: a CONSORT compliant article. Medicine (Baltimore). 2017;96(37):e8094. doi:10.1097/MD.0000000000008094. https://doi.org/10.1097/MD.0000000000008094 PMid:28906414 PMCid:PMC5604683

9. Estebe JP, Dollo G, Le Corre P, Le Naoures A, Chevanne F, Le Verge R, et al. Alkalinization of intracuff lidocaine improves endotracheal tube-induced emergence phenomena. Anesth Analg. 2002;94(1):227-30. doi:10.1097/00000539-200201000-00044. https://doi.org/10.1097/00000539-200201000-00044 PMid:11772834

10. Estebe JP, Gentili M, Le Corre P, Dollo G, Chevanne F, Ecoffey C. Alkalinization of intracuff lidocaine: efficacy and safety. Anesth Analg. 2005;101(5):1536-41. doi:10.1213/01.ANE.0000180995.24211.89. https://doi.org/10.1213/01.ANE.0000180995.24211.89 PMid:16244028

11. Lam F, Lin YC, Tsai HC, Chen TL, Tam KW, Chen CY. Effect of intracuff lidocaine on postoperative sore throat and the emergence phenomenon: a systematic review and meta-analysis of randomized controlled trials. PLoS One. 2015;10(8):e0136184. doi:10.1371/journal.pone.0136184. https://doi.org/10.1371/journal.pone.0136184 PMid:26288276 PMCid:PMC4544846

12. Tanaka Y, Nakayama T, Nishimori M, Tsujimura Y, Kawaguchi M, Sato Y. Lidocaine for preventing postoperative sore throat. Cochrane Database Syst Rev. 2015;(7):CD004081. doi:10.1002/14651858.CD004081.pub3. https://doi.org/10.1002/14651858.CD004081.pub3

13. Chen ZX, Shi Z, Wang B, Zhang Y. Intracuff alkalinized lidocaine to prevent postoperative airway complications: a meta-analysis. World J Clin Cases. 2021;9(34):10626-37. doi:10.12998/wjcc.v9.i34.10626. https://doi.org/10.12998/wjcc.v9.i34.10626 PMid:35004994 PMCid:PMC8686150

14. Peng F, Wang M, Yang H, Yang X, Long M. Efficacy of intracuff lidocaine in reducing coughing on tube: a systematic review and meta-analysis. J Int Med Res. 2020;48(2):300060520901872. doi:10.1177/0300060520901872. https://doi.org/10.1177/0300060520901872 PMid:32046552 PMCid:PMC7111121

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 3 (2026): September 2026 Issue
https://doi.org/10.51168/ycz1q336
Original Article

PUBLISHER DETAILS

Student's Journal of Health Research (SJHR)
(ISSN 2709-9997) Online
(ISSN 3006-1059) Print
Category: Non-Governmental & Non-profit Organization
Email: studentsjournal2020@gmail.com
WhatsApp: +256 775 434 261
Location: Scholar's Summit Nakigalala, P. O. Box 701432, Entebbe Uganda, East Africa