

A sore throat after endotracheal intubation in Sanglah General Hospital 2017



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ABSTRACT

Background: Cuff volume additionally impacts a postoperative sore throat and dysphagia. The rate of a sore throat has likewise been discovered to be higher in the event of Laryngeal Mask Airway (LMA) than that of endotracheal intubation (ETT).

Aim: To know the duration of a sore throat and level of severity of a sore throat after endotracheal intubation among patients of Sanglah General Hospital.

Method: This cross sectional study was conducted on patients of Sanglah General Hospital. There were 100 students were participated in this study. They were asked to fill up a self-administered questionnaire. The variables assessed were their duration towards patients who have used anesthetic during surgery.

Result: About 54% of 100 patient of Sanglah General Hospital, respectively had a sore throat for 4 to 6 days after endotracheal intubation. However, 28% of patients had a sore throat from day one to day three after the endotracheal intubation method. For the severity of a sore throat over 50% of the patients have experienced pain in eating, drinking, talking and for some people it has given them an enormous side effect towards their daily activity. Though the overall duration and severity of a sore throat among the patient, lasted less than a week and for the severity patient have voted respectively high. Patients with good diet control after the surgery tend to heal faster.

Keywords: a Sore throat, endotracheal intubation, severity, duration.

Cite This Article: Shanmuganathan, S., Putra, K.A.H., Sucandra, I.M.A.K., Kurniyanta, P. 2020. A sore throat after endotracheal intubation in Sanglah General Hospital 2017. *Intisari Sains Medis* 11(3): 1096-1101. DOI: [10.15562/ism.v11i3.292](https://doi.org/10.15562/ism.v11i3.292)

INTRODUCTION

Endotracheal intubation is an essential strategy which is regularly used to perform in patients who are oblivious or for the individuals who can't inhale all alone. Endotracheal intubation serves to forestall suffocation or impediment of the entry of air into the lung.⁴ In a typical commonplace Endotracheal Intubation, a patient is first given substantial anesthesia, and after that, a flexible plastic tube is put into the trachea (windpipe) through the mouth or here and there the nose to help the patient with breathing yet regular mouth is crisis cases. The trachea which is known as the windpipe is a round and a hollow tube that is roughly around four inches in length with one inch in the distance across where it starts in merely under the voice box slips from behind of the breastbone inevitably then partitions into two little tubes and every tube are join with one of the lungs.² The windpipe is additionally plates produced using the extreme ligament, muscle. Furthermore, connective tissue through its covering is made out of the smooth tissue. Each time you take in, the windpipe gets somewhat more and more extensive and after that profits, to its ordinary size as you inhale out. After general anesthesia, experts may add to a sore throat. This can range between a minor inconvenience and

a more extreme consistent torment.³ You might likewise have an extremely dry throat, may have a rough voice or feel torment on gulping. These manifestations may vanish inside of 24 hours after the endotracheal intubation yet may take two days or more to settle down entirely.¹

An experts may require this endotracheal intubation method for one of the accompanying reasons to uproot an item that is hindering your air section, to open your airway routes with the goal that you can get a sedative, prescription, or oxygen, to empower your specialist to get a reasonable perspective of your upper aviation route, to secure your lungs, if you have halted or are experiencing issues relaxing, you need a machine to help you relax, you have a head harm and the organization of endotracheal intubation will empower your airway route to totally open. This permits oxygen to pass openly to and from your lungs.

Endotracheal intubation is commonly performed in the recovering facility, where you will be given some narcotic. In crisis circumstances, endotracheal intubation may be managed by a paramedic at the scene of the crisis. Studies have demonstrated that paramedics can adequately perform this technique. In a majority of the standard endotracheal intubation surgery, it will get anesthesia before the surgery.⁸ When you have quieted them, an

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anesthesiologist will open your mouth and addition a little camera called a laryngoscope through this camera he is utilized to inspect within the voice box. Once the vocal cord has been found, the flexible plastic of endotracheal intubation tube will be set into your mouth and brought down through the vocal lines. The tube might then be joined with a ventilator (breathing machine) or may be controlled physically by connecting a ventilation bag, which the anesthesiologist will use to pump air into your lungs.⁶ The anesthesiologist will then listen to your breathing through a stethoscope to guarantee that the tube is in the proper spot. When there is no more need help to breathe, the tube is uprooted. Our incidence of post-intubation of throat complaints of approximately 40% lies in the middle of ranges of comparable figures from the literature (14–75%).²

Most cases where endotracheal intubation must be performed, the patient will be under general anesthesia.³ Even though most sound individuals don't have any issues with general anesthesia, there is a little danger of long-haul confusions and, once in a while passing. These dangers generally rely on your general wellbeing and the kind of methodology you are experiencing. Elements that may expand your danger of difficulties include the medical conditions that include your lungs, kidneys, or heart, family history of unfriendly responses to anesthesia, sleep apnea, obesity, allergies to sustenance or prescriptions, alcohol utilization, smoking.⁵ On the off chance that you have any of these medicinal issues or are more established, you may be more at danger of the accompanying inconveniences. Be that as it may, these intricacies are still uncommon is heart assault, lung contamination, stroke.¹

Awakening under anesthesia is indicated by the Mayo Center, around maybe a couple of individuals in every 1,000 wakes up quickly while under the impacts of the general anesthesia.⁶ On some different events, individuals feel extreme agony which this can prompt long haul mental issues. Those components that may expand the danger of this event include emergency surgery, heart or lung issues, long-term utilization of sedatives, sedatives, or cocaine, daily liquor utilization.¹

In intubation, the dangers there are a few complications identified with intubation. As to keep these from happening, it will be assessed by the anesthesiologist (or emergency ambulance in a crisis circumstance) before the system and will be observed all through for potential difficulties. For instance, the buildup of abundance water in your tissues and bleeding.¹ Nitrous oxide can diffuse into the cuff of an endotracheal tube cause tracheal intubation, and the cuff pressure against the trachea

may cause mucosal harm. Components, for example, tracheal-tube size, and sleeve configuration have been indicated to be imperative causative variables.⁶ Routine tracheal intubation for elective surgical strategies can bring about obsessive changes, injury, and nerve harm which might likewise represent postoperative throat manifestations. A sore throat taking after the utilization of a laryngeal veil seems, by all accounts, to be identified with the method of insertion however the commitment of intracuff weight stays to be elucidated. No doubt, notwithstanding, that high intracuff weight is correlated with nerve paralyzes because of neuropraxia and nerve pressure.⁴ Granuloma of the vocal ropes which may be resulted from an ulcer when granulation tissue structures and structures a sessile injury.¹ The frequency changes from 1: 800 to 1: 20000. Patients may be asymptomatic or have roughness, torment also, distress in the throat, unending hack, and hemoptysis. Determined manifestations after intubation require an ear, nose and throat specialist who is usually more than a strict voice rest. Granulomas generally mend suddenly. Surgical mediation is obliged just if the injury is pedunculated or the patients create a respiratory obstacle.¹ Cuff volume additionally impacts a postoperative sore throat and dysphagia. The rate of a sore throat has likewise been discovered to be higher in the event of Laryngeal Mask Airway (LMA) than that of endotracheal intubation (ETT).

METHODS

This study is a descriptive cross sectional study conducted at RSUP Sanglah Denpasar Bali in early July 2017. There were as many as 100 post-operative adult patients (above 18 years old) using general anesthetic with ASA 1 and 2 as the samples.

The duration of a sore throat after endotracheal intubation evaluated in own scoring. The score can be determined by less than 6 hours of the duration as score 1 which the patient would be under the general anesthesia for reasonable timing. If the period of surgery increases to 6 or more hours, it can be categories in score 2. For those who have said the timing is unknown can be categories with score 0. The duration of post-operative sore throat score 1 for the less severe for less than a week. Whereas for the length of a post-operative sore throat more than a week are more severe thus they are in score 2. For those who have said the timing is unknown can be categories with score 0. Those who answer yes experience more severe pain thus the score is 2 and for those who reported no the score is 1 which is less severe pain felt. Score 1 when the person is able to swallow within a week since, score 2 for those who took a week plus to swallow food which means

the pain took more time to cure. Score 0 for those patients who are not sure.

Furthermore, score 1 is given for those have less than level 5 and score 2 given for level 5 to 10 because the severity is quite bad. The score of 1 is given for those who can talk within a week. Score 2 is given to those was able to speak again after a week. The score 1 for the others because the most prominently chosen side effects are fever and cough are given score 2.

RESULTS

Type of Patient and Age

Based on table 1, about 86% of 100 patients of Sanglah General Hospital who volunteer to do this questionnaire about a sore throat after endotracheal intubation is in the range of fewer than 50 years old respectively. However, 14% of patients were above 50 years old. For the types of patient who volunteer for the questionnaire 63% was male and the rest 37%

of them was female. Comparison between the data showed that the highest numbers of a male with the less number of the age range of 50 are has gone through the Endotracheal intubation procedure.

Surgical Experience and the Type of Surgery

Based on table 5.2, 100% of the volunteers have undergone surgery using Endotracheal Intubation method. The type of surgery patient who undergoes an endotracheal intubation method with 77% is trauma and 23% with a non-traumatic patient.

Surgical Duration

Based on table 3 majority of the patients have gone 1 to 2 hours surgery using endotracheal intubation method surgery with the percentage of 72. Patients that don't know the time of duration of the surgeries are 25%. Patients have undergone surgery for the period between 3 to 4 hours 2%. Last and foremost, there is 1% of patient who has gone through between 5 to 6 hours of surgery timing.

Duration of the Sore Throat

Based on table 4, a period of a sore throat after endotracheal intubation procedure between 1 to 3 days with the percentage of 28. Whereas, it has the highest percentage value for the duration of a sore throat between the day 4 to 6 days with 54%. Patients with a percentage of 4% had a sore throat for more than a week. There was 14% of the couldn't remember their duration of a sore throat after endotracheal intubation.

Knowledge Level

Based on table 5 there has been 2% of the patients said the presence of blood during a sore throat where the remaining 98% of the patients didn't experience and bleeding. Patients are not able to swallow food while having a sore throat are 89%. That 11 % of the patient said, they are able to swallow food even when they had a sore throat. Whereas, 98% of the patients weren't able to drink water while having the sore throat after endotracheal intubation. The patient was this able to drink water are 2%. The patients had voted positive for having pain talking while having sore throat are 74 % where the remaining 26% voted for not having any throat pain when talking. 57% of the patient had difficulties with their daily activities because of a sore throat after endotracheal intubation and the other 43% of the patients said a sore throat didn't disturb their daily activities. Thus 67% of the patients, have voted positive for having nausea feeling after the endotracheal intubation while having a sore throat and 33% have said no for nausea feeling. For the side effects of a sore throat after the endotracheal intubation around 65% have

Table 1. Frequency Distribution of the type of patient and age towards Sore Throat after Endotracheal Intubation in patients of Sanglah General Hospital year 2017-2018.

Variables	n	%	P
Type of patient :			
- Male	63	63%	0.05
- Female	37	37%	0.09
Age :			
- (<50)	86	86%	0.01
- (>50)	14	14%	0.03

Table 2. Frequency Distribution of the experience of surgery using Endotracheal Intubation and the type of surgery undergoes by the volunteer patients of Sanglah General Hospital.

Variables	n	%	P
Surgical Experience			
- Yes	100	100%	0.24
- No	0	0%	1.39
Type of surgery			
- Trauma	77	77%	0.13
- Non-Trauma	23	23%	1.04

Table 3. Frequency distribution of the duration of surgery

Variables	n	%
Surgical duration(hours)		
- 1 - 2	72	72
- 3 - 4	2	2
- 5 - 6	1	1
- 6 - 12	0	0
- >12	0	0
- unknown	25	25

Table 4. Frequency table of the duration of a sore throat

Variables	n	%
Duration		
- 1 - 3 days	28	28
- 4 - 6 days	54	54
- >1 week	4	4
- unknown	14	14

Table 5. Description of the level knowledge in a sore throat after endotracheal intubation

Question Category	Yes	No
Presence of blood during a sore throat?	2%	98%
Are you able to swallow the food?	11%	89%
Is there any pain when drinking water?	98%	2%
Is there any pain when you are talking?	74%	26%
Is a sore throat affecting daily activities?	43%	57%
Do you experience nausea?	67%	33%
Side effects of a sore throat?	65%	35%

Table 6. Frequency table of the duration that the patient was able to swallow food without sore throat pain

Variables	n	%
Able to swallow		
- < 1 week	34	34
- > 1 week	55	55
- not sure	11	11

Table 7. Frequency table of the level of pain when you are swallowing water

Variables	n	%
Pain level		
- 1	0	0
- 2	0	0
- 3	0	0
- 4	3	3
- 5	17	17
- 6	34	34
- 7	42	42
- 8	4	4
- 9	0	0
- 10	0	0

Table 8. Frequency table for the duration that takes for the voice to recover itself.

Variables	N	%
Recovery		
- < 1 week	87	87
- > 1 week	13	13

said positive and 35% have said negative.

Swallowing Duration

Based on table 6, the duration for the patients to able to swallow food without feeling the sore throat pain took a week plus for 55% of the patients in RSUP Sanglah. Patients who received only a week or less to cure a sore throat are 34%, and 11% of patients are not sure of the duration.

Pain Level

Based on table 7, the level of pain swallowing food while having a sore throat after endotracheal intubation shows a peak at level 7 with 42% of patients. Around 3% of the patient have voted level 4 of pain when they swallow the food. 17% of the patients have complained about level 5 of pain during swallowing. For level 6 of pain, while taking the food, 34% have said yes. Only 4% of the patients have said they experience level 8 pain when they want to ingest food while having a sore throat after endotracheal intubation. There is level 1,2,3, 9, and 10 has no patient voted.

Recovery Period of the Voice

Based on table 8, 87% of the patients have chosen the duration for the voice to recover as usual is less than 1 week. 13% of the patients said it took 1 week and more to get back to normal.

Side Effect

Based on table 9, a side effect of a sore throat after endotracheal intubation fever with 34%, cough with 55% patients have that side effect, and 11% of the patient have voted others.

DISCUSSION

As for the kinds of a patient who volunteer for the questionnaire, 63% was male, and the remaining 37% of them was female. Comparison between the pieces of information demonstrated that most high quantities of a male with the less number of age scope of 50 are has experienced the Endotracheal intubation procedure. Over the period from December 2001 until April 2002, an aggregate of 809 patient of both sex, matured in the vicinity of 15 and 94 years, experiencing elective surgery, were enrolled tentatively and addressed about the event of a postoperative sore throat after tracheal intubation.² All of the volunteers have experienced operation utilizing Endotracheal Intubation strategy. To obtain the data, all the participant must have gone through surgery. The sort of operation quiet who experiences an endotracheal intubation strategy with 77% are trauma and 23% with non-traumatic persistent. Type of surgery is a question

Table 9. Frequency table of the side effects of a sore throat after endotracheal intubation

Variables	n	%
Side effect		
- Fever	34	34
- A cough	55	55
- others	11	11

of whether the surgery is a trauma or non trauma surgery to identify the severity of the surgery. Usually, trauma surgery are done especially to those had accidents and also other traumatic conditions for example Abdominal trauma, Chest trauma, Facial trauma, Head injury, Spinal cord injury. In the other side, non traumatic patients had used the endotracheal intubation method to proceed with the surgery. For an instant of non traumatic surgeries, ganglion removal surgery. Further criteria for avoidance were powerlessness to get assent, age under 15 years, crisis task, and activities inside the zone of mouth, pharynx, larynx and throat.² Greater part of the patients have gone 1 to 2 hours surgery utilizing endotracheal intubation technique surgery with the level of 72%. The less timing also can indicate the surgery might be a minor surgery. Otherwise, the schedule can also contribute to a life treating immediate oxygen support system for the patient whom may be a victim of heavy bleeding or a head injury. Patients that don't know the season of the term of the surgeries is 25%. Patients those who have experienced surgery for the span between 3 to 4 hours are 2%. Long hours surgery 3 to 4 hours could be a severe surgery for an instant hernia. Last and foremost, there is 1% of patient who has experienced between 5 to 6 hours of surgery timing. 6 hours of surgery is indicating a major operation which can be tumor removal surgery for instance. Undergoing elective surgery were recruited prospectively and questioned about the occurrence of a postoperative sore throat after tracheal intubation.²

Duration of a sore throat after endotracheal intubation technique between day 1 to day 3 with the level of 28%. Most probably they had a proper food control right after the surgery. Avoiding spicy food and consuming less hot beverages food is highly recommend if the patient has been discharged from the hospital within the less than two days. Though, it has the most astounding rate an incentive for the term of a sore throat between the day 4 to day 6 with 54%. Patients had a sore throat for over seven days are 4%. There was 14% of the couldn't recall their length of a sore throat after endotracheal intubation. Of the 400 patients who were intubated, 23 griped of a sore throat; the 100 patients who were not intubated, 2 created sore throat.² There has been

2% of the patients said there is the presence of blood inside the throat where the remaining 98% of the patients didn't have the bleeding.

Patients who are not ready to swallow sustenance while having a sore throat are 89%. Patients who said yes, they could swallow nourishment notwithstanding when they had a sore throat are 11%. Though, 98% of the patients couldn't drink water while having the sore throat after endotracheal intubation. The percentage of patients who are able to drink water is 2%. Patients who had voted yes for having torment talking while at the same time having sore throat are 74% whereby the staying 26% voted for not having any throat torment when talking. Patients who experienced issues with their daily exercises in light of a sore throat after endotracheal intubation are 57% and the other 43% of the patients said a sore throat didn't bother their daily exercises. Patients who have voted yes for having queasiness feeling after the endotracheal intubation while having sore throat are 67%, and 33% have said no for sickness feeling. Be that as it may, in the utilizing Endotracheal Intubation the inflatable balloon expands in the trachea and can be invigorated thus extended the danger of postoperative queasiness and heaving.⁴

For the symptoms of a sore throat after the endotracheal intubation, around 65% have given a definite answer, and 35% have given a negative response. The length for the patients to ready to swallow sustenance without feeling the sore throat torment took seven days in addition to for 55% of the patients in RSUP Sanglah. Patients who received just a week or less to cure a sore throat are 34%, and 11% patients don't know of the term. In any case, there are separated cases with the higher force of torment, especially from the considerably more prolonged length of intubation. In these cases, extra side effects, for example, hoarseness throat usually because of the dryness of the throat during the procedure.²

The length for the patients to ready to swallow sustenance without feeling the sore throat torment took seven days in addition to for 55% of the patients in RSUP Sanglah. Patients who received just a week or less to cure a sore throat are 34%, and 11% patients don't know of the term. Patients who have to pick the duration for the voice to return normal under 1 week are 87%. Patients who said it took 1 week and more to return to typical are 13%. The ability to talk gives a tremendous impact on persons daily life especially some who are involved in marketing line. A side effect of a sore throat after endotracheal intubation fever or chills with 34%, cough with 55% patients have that side effect, and 11% of the patient have voted others. The other

possible side effects of a sore throat are body aches, headache, runny nose or nasal congestion, earache, sneezing. The activity and exchanging the patients to the recuperation room and furthermore until 24 hours after task, all patients were checked for improvement of postoperative confusions including nausea, vomiting, coughing, and sore throat.⁴

CONCLUSION

Endotracheal intubation is also a standard method in the majority of the general anesthesia. Therefore to prove whether these researches apply the same concept in Denpasar Bali, research is being done on the impact of a sore throat after endotracheal intubation. Sore throat positions other than the torment and sickness among the most regular subjective grievances that are communicated by the patients after tracheal intubation. According to my aim, I get to know the level of knowledge towards a sore throat after endotracheal intubation among patients from Rumah Sakit Umum Pusat Sanglah by doing this study. Though, patients who have undergone endotracheal intubation realize that they do have an inevitable side effect because of it. Still, they don't seem to understand why it happens. There are some steps can be done to increase the patient's knowledge. We as doctors can explain more detail about the cause of side effects before the surgery so that it will help the patient to go through the post endotracheal intubation process. According to my questionnaire, there was more male patient; their age range is less than 50 years

old, the majority were traumatic patient, mostly had the surgery for 1 to 2 hours.

ACKNOWLEDGMENT

Author would like to thank our God, who guided us through the way; to friends and families, they were an excellent source of support and encouragement; to every person who provides something to light the pathway; and finally, the authors would like to thank all the patients from Sanglah General Hospital who willingly participated in this study.

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