

## Overview of smoking habits on the occurrence of nicotine stomatitis at Warkop Lima Satu Makassar

Gambaran kebiasaan merokok terhadap kejadian stomatitis nikotin di Warkop Lima Satu Makassar

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### ABSTRACT

The response to the heat generated by burning cigarettes placed in the oral cavity can cause inflammation of the palate mucosa. Nicotine stomatitis is a lesion located on the palate mucosa, influenced by smoking intensity and type of cigarette. The study was conducted to determine the description of smoking habits towards the occurrence of nicotine stomatitis in Warkop Lima Satu Makassar City. Descriptive research with cross-sectional design, purposive sampling. The research subjects were given anamnesis and then examined the oral cavity. Based on age group, the highest percentage of nicotine stomatitis was found in smokers aged 56-65 years. Based on the type of cigarette, the highest percentage of nicotine stomatitis was found in smokers with clove cigarettes. Based on smoking duration, the highest percentage of nicotine stomatitis was found in smokers with smoking duration >20 years. Based on smoking intensity, the highest percentage of nicotine stomatitis was found in smokers with >20 cigarettes. It is concluded that there is a picture of smoking habits towards the occurrence of nicotine stomatitis in smokers at Warkop Lima Satu Makassar City with the highest percentage of nicotine stomatitis sufferers in the 56-65-year-old smoker group.

**Keywords:** smoking habit, nicotine stomatitis

### ABSTRAK

Respon terhadap panas yang dihasilkan oleh pembakaran rokok yang diletakkan di dalam rongga mulut dapat menyebabkan peradangan pada mukosa palatum. Stomatitis nikotin merupakan lesi yang terletak pada mukosa palatum, dipengaruhi oleh intensitas merokok dan jenis rokok. Penelitian dilakukan untuk mengetahui gambaran kebiasaan merokok terhadap terjadinya stomatitis nikotin di Warkop Lima Satu Kota Makassar. Penelitian deskriptif dengan desain *cross-sectional*, pengambilan sampelnya secara *purposive sampling*. Subjek penelitian diberikan anamnesis dan kemudian diperiksa rongga mulutnya. Berdasarkan kelompok usia, persentase stomatitis nikotin tertinggi ditemukan pada perokok usia 56-65 tahun. Berdasarkan jenis rokok, persentase stomatitis nikotin tertinggi ditemukan pada perokok dengan jenis rokok kretek. Berdasarkan lama merokok, persentase stomatitis nikotin tertinggi ditemukan pada perokok dengan lama merokok >20 tahun. Berdasarkan intensitas merokok, persentase stomatitis nikotin tertinggi ditemukan pada perokok dengan jumlah rokok >20 batang. Disimpulkan bahwa terdapat gambaran kebiasaan merokok terhadap terjadinya stomatitis nikotin pada perokok di Warkop Lima Satu Kota Makassar dengan persentase penderita stomatitis nikotin tertinggi pada kelompok perokok usia 56-65 tahun.

**Kata kunci:** kebiasaan merokok, stomatitis nikotin

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### INTRODUCTION

Smoking is a habit that has been accepted by the general public. Even smoking is considered a symbol of socialization and friendliness. Based on WHO data in 2018 the number of smokers in the world continues to increase, it is estimated that around 80% of these numbers come from developing countries such as Indonesia. The number of smokers in Indonesia is number one in Southeast Asia and third in the world after China and India. Based on the results of the Basic Health Research or Riskesdas in 2018, the prevalence of smokers in Indonesia aged over 15 years reached 33.8%. Of these men are the most smokers as much as 62.9% while women are only 4.8%. South Sulawesi Province is in 10<sup>th</sup> place with the highest category of smokers approaching 30%.<sup>1,2</sup>

The prevalence of nicotine stomatitis in smokers is reported 0.1-2.5%. This lesion is more common in men and is a common clinical picture in consumers of pipe tobacco and cigarettes, as well as in individual who smoke. In the study of Tambunan et al, reported that there was no relationship between smoking duration and the incidence of nicotine stomatitis, but there was a relationship between the number of cigarettes smoked daily and the incidence of nicotine stomatitis. Nicotine stomatitis lesions are most often found in smokers with 11-20 cigarettes per day.<sup>3-5</sup>

Coffee shops are identical to coffee and cigarettes, where everyone who goes to a coffee shop will definitely

smoke and be accompanied by a cup of coffee. Until now, there is not much literature that discusses nicotine stomatitis in smokers, especially in Makassar. Therefore, the authors are interested in conducting research on the overview of smoking habits on the onset of nicotine stomatitis at Warkop Lima Satu Makassar City.

### METHODS

This is a descriptive-research with a cross-sectional study design that describes the overview of smoking habits on the occurrence of nicotine stomatitis in smokers at Warkop Lima Satu Makassar. The population were all smokers who were at the Warkop on December 1 and 2, 2023. The sampling technique used was purposive sampling, with a total sample of 45 respondents.

Research has been conducted on the occurrence of nicotine stomatitis found in smoking habits, and the data collection were carried out by conducting anamnesis and looking at the intraoral clinical picture of smokers at Warkop Lima Satu Makassar City.

### RESULTS

Data taken from the respondents were age group, type of cigarette, length of smoking, and intensity of smoking per day. All research results were collected, recorded, processed and analyzed. From the results on the picture that experienced cases of nicotine stomatitis were 19 cases out of 45 total samples.

**Table 1** Distribution of respondents by age group

Age Group	Frequency	Percentage
17–25	24	53.3%
26–35	17	37.7%
36–45	2	4.5%
46–55	0	0
56–65	2	4.5%
<b>TOTAL</b>	<b>45</b>	<b>100%</b>

Based on table 1, it is known that in the study of the overview of smoking habits on the occurrence of nicotine stomatitis based on the age group 17-25 years there were 23 (53.3%), at the age of 26-35 years there were 17 (37.7%), at the age of 36-45 years there were 2 (4.5%), and at the age of 56-65 years there were 2 (4.5%).

Based on table 2, it can be seen that on the type of cigarette there are 42 (93.3%) filter cigarettes, and 3 (6.7%) kretek cigarettes. Based on table 3, it can be seen that smokers based on length of smoking 1-10 years there are 33 (73.3%), at 11-20 years there are 7 (15.6%), and at more than 20 years there are 5 (11.1%).

Based on table 4, it is known that smokers based on smoking intensity per day less than 10 cigarettes are 13 (28.9%), 10-20 cigarettes are 29 (64.4%), and more than 20 cigarettes per day there are 3 (6.7%).

Based on table 5, it is known that the number of smokers who suffer from nicotine stomatitis based on the age of 17-25 years there are 10 (41.7%) sufferers, at the age of 26-35 years there are 6 (32.3%) sufferers, at the age of 36-45 there are 1 (50%) sufferer, and at the age of 56-65 there are 2 (100%) sufferers. Based on the type of cigarette there are 17 (40.5%) sufferers in filter cigarettes, and 2 (66.7%) sufferers in kretek cigarettes. Based on the length of smoking 1-10 years there are 13 (39.4%) sufferers, 11-20 years there are 2 (28.6%) sufferers, and more than 20 years there are 4 (80%) sufferers. As well as based on the intensity of smoking per day less than 10 cigarettes there are 2 (15.4%) sufferers, 10-20 cigarettes 14 (48.3%) sufferers, and more than 20 cigarettes per day there are 3 (100%) sufferers.

**Table 2** Distribution of respondents based on cigarette type

Type of Cigarette	Frequency	Percentage
Filter Cigarettes	42	93,3%
Kretek Cigarettes	3	6,7%
<b>TOTAL</b>	<b>45</b>	<b>100%</b>

**Table 5** Total number and percentage of nicotine stomatitis patients from all respondents based on age, type of cigarette, smoking duration, and smoking intensity.

Respondent Distribution		Total Respondents	Total of Nicotine Stomatitis Sufferers	Percentage
Age	17–25	24	10	41.7%
	26–35	17	6	32.3%
	36–45	2	1	50%
	46–55	-	-	-
	56–65	2	2	100%
Type of Cigarette	Filter Cigarettes	42	17	40.5%
	Kretek Cigarettes	3	2	66.7%
Length of Smoking	1 – 10 Year	33	13	39.4%
	11 – 20 Year	7	2	28.6%
	>20 Year	5	4	80%
Smoking Intensity/Day	<10 Cigarettes	13	2	15.4%
	10 – 20 Cigarettes	29	14	48.3%
	>20 Cigarettes	3	3	100%

**Table 3** Distribution of respondents based on length of smoking

Length of Smoking	Frequency	Percentage
1 – 10 Years	33	73,3%
11 – 20 Years	7	15,6%
>20 Years	5	11,1%
<b>TOTAL</b>	<b>45</b>	<b>100%</b>

**Table 4** Distribution of respondents based on smoking intensity per day

Smoking Intensity/Day	Frequency	Percentage
<10 Cigarettes	13	28,9%
10 – 20 Cigarettes	29	64,4%
>20 Cigarettes	3	6,7%
<b>TOTAL</b>	<b>45</b>	<b>100%</b>

## DISCUSSION

This study was conducted at Warkop Lima Satu Makassar regarding the overview of smoking habits. The study resulted in a total sample of 45 intraoral clinical images with a picture of nicotine stomatitis found in 19 smokers. Nicotine stomatitis arises because of the large amount of cigarettes smoked by smokers so that the temperature of the cigarette smoke that comes into direct contact to the palatal mucosa can cause irritation.

In this study, the highest percentage of respondents who suffered from nicotine stomatitis based on age, in the age group 56-65 years there were 2 (100%) respondents who suffered nicotine stomatitis. The results of this study are in line with research conducted by Hutami et al which shows that with increasing age there is a decrease in immune system function and an increase in autoimmune responses. The smoking habit that elderly respondents have in their past can cause various complaints in the oral cavity due to a decrease in the immune system.<sup>6</sup>

In this study, the highest percentage of respondents who suffered nicotine stomatitis based on the type of cigarette in the group of respondents who used kretek cigarettes were 2 (66.7%) respondents who suffered nicotine stomatitis. These results are in line with research conducted by Darongke et al which found that 67.5% of smokers smoke cigarettes with kretek cigarettes.<sup>7</sup>

People who smoke kretek cigarettes have a greater chance of suffering from nicotine stomatitis compared to white cigarettes because kretek cigarettes do not have a filter so that the hot smoke that enters the oral cavity is

greater.<sup>8</sup>

In this study, the highest percentage of respondents who suffered from nicotine stomatitis based on smoking duration, in the group of respondents who smoked the longest, namely >20 years, there were 4 (80%) respondents who suffered nicotine stomatitis. These results are in line with research conducted by Siwi et al based on the length of smoking, it was found that respondents who smoked >20 years had the highest percentage, namely 36 people (38.3%) saw nicotine stomatitis. This is because smokers with a length of smoking >20 years smoke more cigarettes compared to the group of respondents with a length of smoking of 1-10 years and 1-20 years.<sup>9</sup>

These results are supported by research conducted by Hutami et al which states that the occurrence of nicotine stomatitis is also influenced by smoking duration. The length of smoking is the length of smoking habit owned by a person, where smokers who have been actively smoking for a long time will be exposed to the burning heat of cigarettes for longer, so the length of smoking will be related to the occurrence of nicotine stomatitis.<sup>6</sup>

In this study, the highest percentage of respondents who suffered from nicotine stomatitis based on smoking intensity, in the group of respondents who smoked >20 cigarettes per day there were 3 (100%) who experienced nicotine stomatitis. The results of this study are in line with research conducted by Tambunan et al which shows that of the 4 respondents who smoked >20 cigarettes/day, 4 respondents suffered nicotine stomatitis.<sup>10</sup>

According to Tambunan et al, the more tobacco smoke that is exposed to the smoker's palate, the more irritation it is likely to occur nicotine stomatitis lesions. The amount of cigarettes smoked every day affects the occurrence of nicotine stomatitis. This is supported by research by Mulalinda et al, which shows the highest number of research subjects who smoke >20 cigarettes/day, namely 42.4% suffering from nicotine stomatitis.<sup>8</sup>

It is concluded that there is an overview of smoking habits on the occurrence of nicotine stomatitis in smokers at Warkop Lima Satu Makassar with the highest percentage of nicotine stomatitis sufferers in the 56-65-year-old smoker group.

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