



WALUYA THE INTERNATIONAL SCIENCE OF HEALTH JOURNAL

Factors Related to Gastritis in Kendari City

Ahmad, Sunarsih, Yunita Amraeni

Mandala Waluya University, Indonesia
Correspondence : mad6580@gmail.com

ARTICLE INFO

Article history

Received : June 27th, 2023
Revised : June 29th, 2023
Accepted : June 30th, 2023

Keywords

Stress,
Smoking,
Diet,
Gastritis.

ABSTRACT

Introduction: Based on an initial survey conducted at 15 Public Health in Kendari City, it was found that gastritis increased by 11798 (29.4%). Kendari City population data as many as 401,719 people spread over 15 sub-districts, seen from the annual report of the Kendari City Office. Thus, researchers feel the need to conduct research on factors related to the incidence of gastritis in Kendari City.

Method: This type of quantitative research with a cross sectional design has a population of all patients who come for treatment at 15 Kendari City Health Centers totaling 11798 and a sample of 385 patients.

Result: The results of the study stated that of the 385 respondents who declared gastritis there were 201 (52.2%) and 185 (47.8%) respondents stated that they did not have gastritis. Based on statistical tests, it showed that there was a significant relationship between stress and gastritis (p value = 0.000) and smoking on the incidence of gastritis (p value = 0.024) while the variable of diet (p value = 0.000) which means that there is a relationship between diet and the incidence of gastritis in the city of Kendari.

Conclusion: There is a relationship between stress and gastritis, there is no relationship between smoking and gastritis, and there is a relationship between diet and gastritis.

Introduction

Health development in Indonesia is currently faced with two problems, on the one hand infectious diseases are still a public health problem that has not been handled much, on the other hand, there has been an increase in the burden of non-communicable diseases (NCDs) in line with increasing risk factors including increased pressure blood pressure, blood sugar, body mass index or obesity, unhealthy diet, lack of

physical activity, and smoking and alcohol. One of the health problems faced today is digestive tract diseases such as gastritis.^[1]

Gastritis is an inflammation or swelling of the gastric mucosa caused by infection with the bacterium *Helicobacter pylori*. Patients with gastritis will experience heartburn, stomach pain, nausea, weakness, decreased appetite, headaches, bleeding in the digestive tract.^[2]

Several factors that cause gastritis include diet, stress, smoking habits, use of NSAID drugs, coffee drinks. As revealed in the exploration results that ulcer sufferers (100 percent) consume foods that are inappropriate or not in accordance with the body's needs with the type of food consumed, the health benefits are not different (sugar, protein, fat).^[3]

Delayed pressure can be the main trigger of gastritis because it can reduce blood flow to the gastric mucosa, causing increased gastric wall penetration. If the pressure occurs continuously and is accompanied by gastritis, it will cause various pathophysiological effects, such as the prevailing neuro-endocrine and hormonal and can accelerate tension and full of emotional problems, such as sadness, thereby causing unnecessary free extremescreation. Whereas the main impact of pressure is on gastric physiology including gastrointestinal portability, expansion of instinctual acuity, changes in gastrointestinal output and adverse consequences on gastric microbiota.^[4]

There are 42,450 cases of gastritis patients (24.2 %) (Dinkes Sultra Province 2020). The highest cases of gastritis in Southeast Sulawesi were in Kendari City with the highest prevalence of racks (29.4%), followed by South Konawe District (27.2%), Konawe District (26.1%), Kolaka District (25.9%), Kolaka District North (26.6 %), Muna District (24.8% %), Bombana District (24.6 %), Bau-Bau District (22.4 %), District (19 %), District (15.7%) , Central Buton Regency (13.7 %), Wakatobi Regency (12.9%), South Buton Regency (8.9 %), West Muna Regency (7.8% %), North Konawe Regency (3.4 %), North Buton Regency (2.6%), and Islands Regency (4%).^[5]

Data from the initial survey of gastritis cases in Kendari City in 2020 it became 9206 (26.2 %), occupying the first rank of the top 10 diseases.^[6]

Gastritis will increase by 11798 (29.4 %). Kendari City population data is 401,719 people spread over 15 sub-districts, where each sub-district has a health center.^[7]

From the increase in gastritis cases which continues to increase in Southeast Sulawesi and the highest in Kendari City. Thus, researchers feel the need to conduct research on factors related to the incidence of gastritis in Kendari City.

Method

This type of quantitative research using a cross sectional study design. The population is all patients who come for treatment at the health center in the city of Kendari with 15 health centers totaling 11798 and a sample of 385. This study uses a probability sample, namely simple random sampling.

Result

Table 1 shows that of statistical tests show that X^2 count = 31,696 X^2 _ table = 3,841 and p value = 0.000 < 0.005. Which means that there is a relationship between stress and gastritis in the city of Kendari in 2022.

Table 2 shows that X^2 count = 2.169 X^2 _ table = 3.841 and p value = 0.024 < 0.005. Which means that there is no relationship between smoking and Gastritis in Kendari City in 2022.

Table 3 shows that X^2 count = 41.565 X^2 table = 3,841 and p value = 0.000 < 0.005. Which means that there is a relationship between Diet and Gastritis in Kendari City in 2022.

Table 1
Stress Factors Associated with Incidence of Gastritis

Stress Factor	Gastritis				Total		X ²	P value
	Gastritis		No Gastritis		n	%		
	n	%	n	%				
Stress	177	60.4	116	39.6	293	100.0	31,696	0.000
No Stress	24	26.1	68	73.9	92	100.0		
Total	201	52.2	184	47.8	385	100.0		

Table 2
Smoking Factors Associated with Incidence of Gastritis

Smoking Factor	Gastritis				Total		X ²	P value
	Gastritis		No Gastritis		n	%		
	n	%	n	%				
Smoking infrequently	109	56.2	85	43.8	194	100.0	2.169	0.024
Smoking Frequently	92	48.2	99	51.8	191	100.0		
Total	201	52.2	184	47.8	385	100.0		

Table 3
Dietary Factors Associated with Incidence of Gastritis

Dietary Factors	Gastritis				Total		X ²	P value
	Gastritis		No Gastritis		n	%		
	n	%	n	%				
Irregular Diet	177	62.1	108	37.9	285	100.0	41.565	0.000
Regular Diet	24	24	76	76.0	100	100.0		
Total	201	52.2	184	47.8	385	100.0		

Discussion

Stress Factors Related to the Incidence of Gastritis

The results of statistical tests show that X^2 count = 31,696 X^2 table = 3,841 and p value = 0.000 < 0.005. Which means that there is a relationship between stress and gastritis in the city of Kendari in 2022. This study also shows that there are still respondents who experience gastritis due to stress, the pressure within them triggers blood flow to the gastric wall mucosa causing stomach acid to rise. If the pressure occurs continuously and is accompanied by dizziness, it will cause various pathophysiological effects for him, because he adapts to something because the provisions cannot meet his needs.

The results of this study are in line with the inner theory which says that stress can cause gastritis because the nervous system in the brain is related to the stomach so that if a person experiences stress, abnormalities in the stomach can appear. Stress can cause hormonal changes in the body. These changes will stimulate the cells in the stomach which then produce excessive acid. This excessive acid makes the stomach feel sore and bloated, over time this can cause stomach wall injuries.

Smoking Factors Related to the Incidence of Gastritis

The results of statistical tests show that X^2 count = 2.169 X^2 table = 3.841 and p value = 0.024 < 0.005. Which means that there is no relationship between smoking and Gastritis in Kendari City in 2022. The results of the chi square statistical test obtained that the p value was p = 0.024 because the p value was greater than 0.005, so statistically it can be said that there is no relationship between smoking and the incidence of gastritis in the city of Kendari in 2022. The researchers assume that not all Smokers can be exposed to gastritis. This was proven by the researchers when observing in the field, because the most people who came for treatment were 218 women (56.6%) and 167 (43.4%) men, where we know that the most smoking places are men, 95% and men. 5% are women.

The results of this study are not in line with the theory that smoking can damage a person's digestive system. This may be caused by other more influential factors such as stress and diet. In addition, smoking habits that are not too high in respondents are also a contributing factor so that there is no relationship between smoking habits and the incidence of gastritis, the number of female respondents is more than the number of male respondents and the prevalence of smoking in men is higher than in women.^[9]

For the smoking factor, there was no significant relationship between the level of cigarette consumption and the incidence of gastritis. In the results of the research conducted, it was found that there was no relationship between smoking and the incidence of gastritis.

Dietary Factors Related to the Incidence of Gastritis

The results of statistical tests show that $X^2_{count} = 41.565$ $X^2_{table} = 3,841$ and $p \text{ value} = 0.000 < 0.005$. Which means that there is a relationship between Diet and Gastritis in Kendari City in 2022. The results of the chi square statistical test obtained that the $p \text{ value}$ was $p = 0.000$ because the $p \text{ value}$ was smaller than 0.005 , so statistically it can be said that there is a relationship between diet and the incidence of gastritis in the city of Kendari in 2022.

The incidence of ulcers can be caused by poor and unpredictable eating patterns, especially the repetition of eating, the type and amount of food, so that the stomach becomes soft when the stomach is corrosive. Diet plan or food utilization is a game plan about the type and amount of food eaten by a person or group at a certain time. Diet is a variable that is very closely related to the occurrence of gastritis. Thus, everyone must maintain eating habits as recommended. Where, get used to eating regularly every time, reducing consuming types of spicy food and avoiding fizzy drinks. If the factor of eating habits has been maintained in accordance with the time, the incidence of gastritis will be avoided so that the quality of health will increase as well.^[10]

Conclusion

There is a relationship between stress and the incidence of gastritis in the city of Kendari. And smoking has no relationship with the incidence of gastritis in the city of Kendari. Meanwhile, diet has a relationship with the incidence of gastritis in the city of Kendari in 2022.

Reference

1. Ministry of Health of the Republic of Indonesia. *Management of Non-Communicable Diseases*. Jakarta: Directorate of Prevention and Control of Non-Communicable Diseases in 2019; 2019.
2. Gobel, SA. Description of Public Knowledge Levels About Gastritis (Maag) in Hunggaluwa Village, Limboto District. *Pharmaceuticals and Sciences Journal*. 2012; 10 (1).
3. Agustian, H., Makmun, D., & Soejono, C. Overview of Upper Gastrointestinal Endoscopy in Dyspepsia in the Elderly at Cipto Mangunkusumo Hospital. *Indonesian Journal of Internal Medicine*. 2017; 2(2):87.
4. Hardi, K., & Huda Amin, N. (2015). Application of Nursing Care Based on Medical Diagnosis and Nanda Nic- Noc (2nd ed.). Yogyakarta: *Mediation*; 2015.
5. Southeast Sulawesi Provincial Health Office. *Health Profile of Kendari*: Southeast Sulawesi Provincial Health Office; 2019.
6. Kendari Health Office. *Health Profile*. Kendari City Health Office; 2020.
7. Kendari Health Office. *Health Profile*. Kendari City Health Office; 2021.
8. Sani, W., & Jufri, N. N. *Analysis of Gastritis Occurrence Factors in Patchouli Farmers in the Work Area of the Tiworo Selatan Health Center, Muna Barat Regency, Kasimpa Jaya Village, 2016* (Doctoral dissertation, Haluoleo University); 2016.
9. Caldwell. *Quit smoking*. Yogyakarta: Popular Libraries; 2009.
10. Wahyuni, S. D., Rumpiati, R., & Ningsih, R. E. M. L. (2017). The relationship between diet and the incidence of gastritis in adolescents. *Global Health Science*. 2017;2(2):149-154.