Conference Paper

Description of Gastritis Characteristics at the Batalaiworu Health Center, Muna Regency, Southeast Sulawesi Province, Indonesia in 2021

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Abstract.
Gastritis is a disease that may attack all levels of society from all ages and gender. The case of gastritis becomes the biggest disease problem in Muna district. For the last 3 years, data obtained from the Batalaiworu Public Health Center showed that there has been an increase in the number of cases of gastritis in the uncertain working area of the Batalaiworu Health Center. This type of research is qualitative. The objective of study is to determine the description of patients with clinical gastritis in the working area of the Batalaiworu Health Center regarding risky eating habit, stress, smoking, coffee consumption habits and the habit of consuming non-steroidal anti-inflammatory drugs (NSAIDs). Respondents in this study were Batalaiworu sub-district people who were included in the list of gastritis patients, which were as many as 172 respondents. The results of this study reported that there is a relationship between the type of food or diet, stress, and consumption of certain drugs with the incidence of gastritis in the working area of the Batalaiworu Health Center, Muna Regency in 2021. However, the frequency of eating, coffee consumption, and smoking habits had no significant relationship with gastritis in the working area of the Batalaiworu Health Center, Muna Regency.

Keywords: Gastritis, bad diet, stress, smoking, habit of consuming coffee, Habit of taking non-steroidal anti-inflammatory drugs (NSAIDs)

1. INTRODUCTION

Gastritis is occurs to many Indonesians from teenagers to the elderly. Gastritis is inflammation of the lining of the stomach which is quite common and can have different causes. Many factors causes the stomach to become an inflamed statement; first of all, it could be due to nonsteroidal anti-inflammatory drugs such as aspirin, ibuprofen, naproxen, which are used in different treatments to soothe certain ailments, e.g rheumatoid arthritis. Secondly, inflammation can be due to abrasive compounds (alcohol, acid, etc.) or an unbalanced diet in which the stomach is damaged by its own stomach acids. Third, long-term physical and/or mental stress resulting in excessive gastric acid production;

fourth, infection caused by the well-known microorganism, Helicobacter (H) pylori. When gastritis is not treated, especially in the latter case, the disease can end in gastric ulcers or in the worst case, gastric cancer.

Signs and symptoms of gastritis depend on how long the problem has been present. If it occurs suddenly, it is called acute gastritis. In the acute stage, superficial gastric inflammation causes nausea and classic pain or discomfort in the upper abdomen. If it develops gradually it is called chronic gastritis and the symptoms may vary from acute with dull pain in the upper abdomen and a feeling of fullness and loss of appetite after several bites of food. However, in some cases, people with chronic gastritis may not feel these symptoms. Another type is reactive or chemical gastritis which is defined as foveolar elongation, tortuosity, and hypercellularity of the gastric surface epithelium, along with edema, vasodilation, congestion of the gastric lamina propria, and inflammatory cell deficiency. This type of gastritis is thought to be the result of duodenogastric bile reflux or the use of non-steroidal anti-inflammatory drugs (Voutilainen et. al., 2002).

Clinicians are different in the classification of less common and specific forms of gastritis, mainly because there is so much overlap with the development of chronic H. pyloriin gastritis and its complications. Other types of gastritis that can be diagnosed include: a) Acute stress gastritis, the most serious form of gastritis that usually occurs in critically ill patients like on intensive care where stress erosion can occur suddenly as a result of severe trauma or pressure on the body of stomach lining; b) Atrophic gastritis, due to chronic gastritis that causes atrophy or a decrease in the size and shrinkage of the stomach lining. Gastric atrophy is the final stage of chronic gastritis and may be a precursor to gastric cancer; c) Superficial gastritis is a term often used to describe the early stages of chronic gastritis; d) Rare specific forms of gastritis include granulomatous, eosinophilic and lymphocytic gastritis (Sipponen & Price, 2011).

Based on disease surveillance data in the year 2018 - 2020, the Batalaiworu Health Center which is one of the largest health centers in Muna Regency had the number of gastritis cases in its working area. The general poly data in 2018 reported that there were 34 new cases and 23 old cases. In the year 2019, there were 35 new cases and 22 old cases. There were 33 new cases and 25 old cases in 2020. Thus, the number of sufferers from 2018 to 2020 is 172 patients.

According to the data and information obtained from the Batalaiworu Health Center, factors causes gastritis are diet, smoking habits, coffee consumption, stress, and consumption of NSAIDs (Non-Steroid Anti-Inflammatory Drugs). Eating habits such as the frequency of eating and the type of food that is not good and irregular can cause a

person to easily get gastritis. Irregular eating habits result in stomach acid digesting the gastric mucosal layer which causing pain. The description above shows that gastritis becomes a major health problem in the working area of the Batalaiworu Health Center year by year.

2. METHODOLOGY

Primary data were collected using a discreet approach from the World Health Organization (WHO) STEP for surveillance of standard non-communicable disease survey methods. Data were collected from the general of Healt Center Batalaiworu. Primary data collection is done by recording and copying the required documents. The data used in this study are cases data of gastritis sufferers in the working area of the Batalaiworu Health Center include Batalaiworu sub-district from 2018 to 2020. The results of the study are presented on image format as follow.

3. RESULT OF THE STUDY

Based on the results of the study shown in the table below, the age group of respondents with the most is the age of 30-40 years old namely 70 people (40.69%), Mean while, the least is the age group (20-30) years old as many as 50 people (29.07%). Based on gender, the majority of respondents were female as many as 92 people (53.49%) while male respondents were 80 people (46.51%). According the education level, the most respondents with elementary school are 70 people (40.90%), while the least are respondents with high school education as many as 23 people (13.50%).

3.1. Gender

TABLE 1: Sampel characteristic by gender.

No	Gender	Total	Percentage
1	Male	80	46.51
2	Female	92	53.49
Total		**172**	**100**

3.2. Age

We can see by the age of patients with gastritis, ranging from 20 to 50 years old. Almost half of the patients who were sampled in the study, namely 50 (29.07%) were aged between 20-30 years old. Then, aged between 30-40 years old namely 70 patients (40.69%) and as many as 52 (30.23%) aged between 40-50 years old. Further explanation can be seen in the following table:

TABLE 2: Sample characteristic by Age.

No	Age	Total	Percentage
1	20-30 tahun	50	29.07
2	30-40 tahun	70	40.69
3	40-50 tahun	52	30.23
	Total	**172**	**100**

3.3. Education background of patient

TABLE 3: Sample characteristic by education background.

No	Education background	Total	Percentage
1	Pass elementary school / not Pass elementary school	70	40.9
2	Pass Junior High School	53	31.0
3	Pass Senior High School	23	13.5
4	University	25	14.6
	Total	**172**	**100**

Analysis of the gastritis causes of in terms of factors:

3.4. Eating Habit

TABLE 4: Respondens' responds based on eating habit.

No	Eating habit	Year			Total	Percentage
		2018	2019	2020		
1	Often	34	30	28	92	53.49
2	Rarely	30	28	22	80	46.51
	Total	**64**	**58**	**50**	**172**	**172**

Based on the table, it shows that the distribution of respondents based on risky eating habit from a total of 172 respondents as many as 92 (53.49%) respondents often

consume bad foods and out of 242 respondents there are 80 (46.51%) who rarely eat bad foods. The table shows that diet is a determinant of clinical gastritis in gastritis patients in the working area of the Batalaiworu Health Center, Muna Regency.

3.5. Smoking Habit

TABLE 5: Respondens' responds based on smoking habit.

No	Smoking Habit	Year			Total	Percentage
		2018	2019	2020		
1	High risk	2	1	0	3	1.74
2	Low risk	69	57	43	169	98.26
	Total	**71**	**58**	**43**	**172**	**172**

Based on the table, it shows that of the 172 respondents there are 3 (1.74%) respondents who are at high risk of developing clinical gastritis and. There are 172 respondents with 169 (98.26%) respondents who are at low risk of developing clinical gastritis. Smoking is not a determinant of clinical gastritis in gastritis patients in the working area of the Batalaiworu Health Center, Muna Regency.

3.6. Coffee comsumption

TABLE 6: Respondens' responds based on coffee comsumption.

No	History of Coffee Comsumption	Year			Total	Percentage
		2018	2019	2020		
1	High risk	1	2	4	7	4.07
2	Low risk	30	65	70	165	95.93
	Total	**31**	**67**	**74**	**172**	**172**

Based on the table and graph above, it shows that the distribution of respondents with the habit of consuming coffee from 172 respondents are 165 (95.93%) respondents who are at low risk of clinical gastritis. There are 172 respondents with 7 (4.07%) respondents who are at high risk of clinical gastritis. It can be seen that coffee consumption is not a determinant of clinical gastritis in gastritis patients in the working area of the Batalaiworu Health Center, Muna Regency.

3.7. Stress

TABLE 7: Respondens' responds based on stress level.

No	Stres	Year			Total	Percentage
		2018	**2019**	**2020**		
1	High risk	56	50	40	146	84.88
2	Low risk	6	12	8	26	15.12
	Total	**62**	**62**	**48**	**172**	**100**

Based on the table above, it shows that the distribution of respondents from 172 respondents, respondents who are at risk of stress 146 (84. 88%) and of 172 respondents there are as many as 26 (15. 12%) are not at risk of stress. This shows that stress is a determinant of clinical gastritis in gastritis patients in the working area of the Batalaiworu Health Center, Muna Regency.

3.8. OAINS Cosumption (Anti Inflamasi Non Steroid Medicine)

TABLE 8: Respondens' responds based on comsumption habit of Anti Inflamasi Non Steroid Medicine.

No	Stres	Year			Total	Percentage
		2018	**2019**	**2020**		
1	High risks	5	2	3	10	5.81
2	Low risk	62	56	44	162	94.19
	Total	**67**	**58**	**47**	**172**	**172**

Based on the table and graph above, it shows that the distribution of respondents with the habit of consuming coffee from 172 respondents there are 165 (95.93%) respondents who are at low risk of clinical gastritis and from 172 respondents there are 7 (4.07%) respondents who are at high risk of clinical gastritis. This shows that coffee consumption is not a determinant of clinical gastritis in gastritis patients in the working area of the Batalaiworu Health Center, Muna Regency.

4. DISCUSSION

Dietary factors are at risk for clinical gastritis in gastritis patients in the working area of the Batalaiworu Health Center, Muna Regency. Eating habitss are related to the type of food and the amount of food consumed, which means frequently consuming foods that

are at risk of developing gastritis, especially if the stomach is left empty for more than 3-4 hours, it will trigger various diseases and can be affected by gastritis

The results of this study indicate that diet is a determinant of clinical gastritis in gastritis patients in the working area of the Batalaiworu Health Center, Muna Regency. This phenomenon could be caused by the habit of consuming spicy food on an empty stomach before have gastritis. In addition, the habit of rarely having breakfast in the morning can also be the main trigger for the emergence of gastritis. Therefore, people who basically have an irregular diet will be susceptible to gastritis. Where when the stomach must be filled with food, but it is often left empty, so that stomach acid will digest the gastric mucosal layer, because when the stomach is empty, there will be movement.

Furthermore, the results of this study showed that smoking is not a determinant of clinical gastritis in the working area of the Batalaiworu Health Center, Muna Regency. This is because in this study there were fewer male respondents than female patients. In addition, most of their male patients do not consume cigarettes. The result of this study is not support the theory of Caldwell (2009), that cigarettes can damage a person's digestive system. Of all the digestive organs, the stomach is the most sensitive organ. This disorder happens continuously on the digestive system can lead to peptic ulcer disease or gastritis. This is because when a person smokes, the nicotine contained in cigarettes will shrink and injure the blood vessels in the stomach wall, excessive smoking (> 5%) will cause this irritation triggering the stomach to produce more acid and more often than usual, (Ayu Novitasary, Yusuf Sabilu and Cece Suriani Ismail, 2016). Nicotine also slows down the mechanism of action of protective cells in secreting (secretion) sap which is useful for protecting the walls from stomach acid attack. Acid-protective cells are no longer able to perform their functions properly. Excess acid in the stomach and slow secretion of protective sap are result in ulcers in the stomach wall. This is what causes gastritis (Ayu Novitasary, Yusuf Sabilu and Cece Suriani Ismail, 2016).

Furthermore, coffee is a drink consisting of various types of materials and chemical compounds, including fats, carbohydrates, amino acids, and vegetable acids called phenols, vitamins and minerals. Coffee can stimulate the stomach to produce stomach acid, thus creating a more acidic environment and can irritate the gastric mucosa. The results of this study indicate that coffee consumption is not a determinant of clinical gastritis in gastritis patients in the working area of the Batalaiworu Health Center, Muna Regency. This phenomenon is caused by the fact that most patients rarely consume coffee, sometimes they only consume 1 time a day or sometimes only 2 times a week. Although we know that the caffeine content in coffee can stimulate the production

of stomach acid, if consumed in moderation or infrequently, coffee is not a factor in gastritis.

Stress is also one of the factors that cause a person to suffer gastritis. Stress is a non-specific response of the body to every need and a more biologically nuanced concept stimulus due to changes in mechanical temperature. Stress is also a non-specific response of the body to the needs of the body that is disturbed. Thus, stress is a universal phenomenon that occurs in everyday life and cannot be avoided and will be experienced by everyone. In addition, stress also has a total impact on individuals such as physical, social, intellectual, psychological, and spiritual impacts. The results of this study illustrate that stress is a determinant of clinical gastritis in gastritis patients in the working area of the Batalaiworu Health Center, Muna Regency.

Moreover, taking certain drugs can also cause gastritis. NSAIDs are types of drugs that have the effect of causing gastritis. The results of this study showed that 8 people took NSAIDs who were at high risk and did not experience clinical gastritis. It was happen because they took the drug more than 3 times a day. The results of this study found that respondents consumed many other types of drugs that were not the types of NSAIDs mentioned, other types of drugs consumed by respondents included paracetamol, bodrex, acute ulcer drugs, promag, komiprex, paramex, amoxilin, ampicillin, supertetra, milanta, as well as prescription drugs, etc.

5. CONCLUSION

According to the results analysis in this study, it can be concluded that there is a relationship between the type of food or diet, stress, and consumption of certain drugs with gastritis cases in the working area of the Batalaiworu Health Center, Muna Regency in the year 2021. While the frequency of eating, coffee consumption, and habits Smoking does not have a significant relationship with the incidence of gastritis in the working area of the Batalaiworu Health Center, Muna Regency.

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