



DETAIL ENDOSCOPIC EXAMINATION RESULTS IN DISEASE PATIENTS AT Dr. DJAMIL PADANG HOSPITAL

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Abstract

Background : Dyspepsia is a syndrome or a set of symptoms that arise due to abnormalities in the proximal digestive tract in the form of discomfort in the pit of the stomach or retrosternal pain, burning, bloating after eating, belching, nausea, vomiting, feeling full quickly and the stomach feels full. The emergency form of dyspeptic patients is the discovery of alarm symptoms. Patients with alarm symptoms have a high risk of malignancy for that patient should be investigated by endoscopic examination. *Aims*: This study aims to determine and identify the description of the results of endoscopic examination in dyspeptic patients who have alarm symptoms at Dr. RSUP. M. Djamil in 2019-2020. *Method*: This type of research is a categorical descriptive study with a cross sectional study design. The study was conducted in December 2021. The sample of this study were all patients who met the inclusion criteria at RSUP Dr. M. Djamil Padang in 2019-2020 with 39 samples. The sampling technique was done by total sampling. The analysis uses univariate analysis to see the frequency and percentage of each variable using SPSS. *Result* : This study found that the highest age group was 56-65 years as many as 9 people (23.1%), the most gender, namely male as many as 21 people (53.8%). The most common danger sign found was gastrointestinal bleeding as much as 15 (25.9%). The most common endoscopic appearance found was Gastritis as much as 25 (45.5%). *Conclusion*: In this study, the highest age group was 56-65 years, most of which occurred in men, the most common danger sign was gastrointestinal bleeding and the most common endoscopic appearance found was Gastritis.

Keywords: Dyspepsia, Alarm Symptoms, Endoscopy

INTRODUCTION

Dyspepsia is a syndrome or collection of symptoms that arise due to abnormalities in the proximal digestive tract in the form of discomfort in the pit of the stomach or retrosternal pain, burning sensation, bloating after eating, belching, nausea, vomiting, feeling full quickly and stomach ache. full.^{1,2} In Indonesia, dyspepsia is ranked 10th in a group of 10 types the largest disease with a proportion of 1.5% in outpatients in all hospitals in Indonesia.³ Found 30% of dyspepsia cases in general practitioner services and 50% in gastrointestinal specialist services.⁴ In West Sumatra in 2012 the incidence of dyspepsia reached 1.9%, especially functional dyspepsia which ranks at the top of all gastrointestinal diseases and the fourth top of system-wide diseases in the Health Service report. West Sumatra Province.

The form of emergency for dyspepsia patients is the discovery of danger signs (Alarm symptoms). Evaluation of danger signs (alarm symptoms) must be carried out in patients with complaints of dyspepsia. Danger signs of dyspepsia

include patients aged > 45 years, weight loss, persistent recurrent vomiting, iron deficiency anemia, progressive dysphagia, odynophagia, a history of gastrointestinal malignancies, and suspected organic disease.⁵ One study stated that alarm symptoms increase the risk of GI malignancies 5-6 times. Patients with danger signs have a high risk of malignancy and therefore patients must be investigated with an endoscopic examination³ with or without a histopathological examination before being diagnosed as functional dyspepsia.^{6,7} Research by Acosta RD et al also states that patients with alarm symptoms are patients which is often performed endoscopy. endoscopy is intended to detect possible malignancies.⁵

Endoscopy is a dyspepsia diagnostic tool that is useful for directly determining the condition of the digestive tract through a tool called an endoscope. ⁸ The results of endoscopic examination of the gastrointestinal tract that are often found in patients with dyspepsia syndrome are gastritis, functional dyspepsia, erosive gastritis and duodenitis. The most common location for dyspeptic disorders is: stomach to duodenum. Endoscopic examination, the results of which show no abnormalities or appear normal, according to the ROME III criteria, this condition is known as functional dyspepsia.⁹

METHODS

This research is a descriptive study with a cross sectional design. The sample was 33 cases of dyspepsia. Sampling was taken through records of the results of endoscopic examinations at the integrated diagnostic installation and medical record data of dyspepsia patients who underwent endoscopic examinations at RSUP Dr. M. Djamil Padang who met the inclusion criteria in 2019-2020. The sample for this research was selected using total sampling

DISCUSSION

Age

Research that was conducted on 33 samples of dyspepsia patients found that the majority of dyspepsia patients who underwent endoscopic examination at RSUP Dr. M. Djamil in 2019-2020, namely in the 51-60 age category, there were 8 people (24.2%). In line with Gunawan Deborah's research in 2019 at RSUP Prof. Dr. R. D Kandou stated that the highest age of patients undergoing endoscopy was 113 people aged 50-59 years (22.8%) and research by Blessing at H.Abdul Manap Hospital, Jambi City in 2020 stated that the largest age group was 45-60 years old, 33 people (43.42%).^{10,11} However, this is different from research by Lia Pramita in 2018 in Pontianak, where the largest age group was 22-44 years old (34.2%).¹² The results of this study showed that the distribution of dyspepsia patients began to increase at the age of 41- 50 years. This is related to irregular eating patterns, physiological stress in young adulthood and consuming substances that cause irritation. ¹² Age > 40 years is a transition period, many changes occur during this period, there are changes towards aging and changes in psychological burdens including stress.¹³ Stress is one of the psychological factors in the emergence of dyspepsia because the digestive tract is very responsive to emotional and stressful stimuli, related to the relationship between the digestive tract and the Brain Gut Axis (BGA).¹⁴ The negative effects of stress on the digestive tract occur through neuroendocrine mechanisms which are at risk of

increasing production. stomach acid which if left unchecked will cause dyspepsia. 15 Based on this research, it was found that the largest age group was 51-60 years. This can be caused by increasing age, the risk of functional and organic dyspepsia will increase.¹⁶ As we age, the gastric mucosa tends to thin, the production of mucus as a barrier to the stomach decreases, causing the stomach lining to be easily damaged and susceptible to gastric disorders, decreasing HCL secretion. stomach which will have an impact on increasing the risk and colonization of H. pylori which causes neutrophil infiltration into the gastric mucosa.¹ The elderly experience a decrease in body function due to degenerative processes so that many elderly people suffer from degenerative diseases. Degenerative body functions in the elderly will of course give rise to many degenerative diseases. Degenerative diseases that are often found include hypertension and stroke.¹⁷ Some degenerative diseases use NSAIDs in their management, such as aspirin, which is an antiplatelet drug that works to inhibit platelet aggregation, thereby inhibiting thrombus formation in blood vessels and is useful as a blood thinner in hypertensive patients. In patients who have previous stomach disorders, the use of aspirin can increase the risk of dyspepsia symptoms such as gastrointestinal bleeding.^{18,19} In addition, the use of steroid anti-inflammatory drugs can worsen the occurrence of dyspepsia because the mechanism of NSAIDs is to inhibit COX-1 and COX-2, COX-1 has an important function as a gastric protection agent so that when COX-1 is inhibited it can worsen the condition of the stomach.²⁰ In this study the age group >70 years was the lowest age group to experience dyspepsia, this could be because the number of West Sumatra residents aged 70 is the age group at least based on the 2021 Ministry of Home Affairs Dukcapil.

Gender

The results of research on 33 dyspepsia patients who underwent endoscopic examination at RSUP Dr. M. Djamil Padang 2019-2020 shows that the largest gender is 17 men (51.5%) compared to 16 women (46.2%). This is in line with Lia Pramita's 2018 research in Pontianak, the largest number were men (52%) and research in Manado showed that the largest number of patients were men with 30 patients (51%).^{12,21} This is different from research in Ibnu Kahtan in Palu 2019 which shows that the number of female patients dominates twice as much as 178 patients (68.99%) compared to 80 male patients (31.01%).¹² In women, the incidence of dyspepsia can be caused by inappropriate diet and stress levels.¹² In several studies it has been stated that in women higher levels of stress are related to the psychological state of women who are more sensitive to feelings. Disturbances in psychological conditions such as excessive stress can increase gastric acid secretion, motility and digestive vascularity, causing symptoms of dyspepsia.²² In men, the incidence of dyspepsia can be associated with stress, smoking habits and alcohol consumption.²³ Smoking can increase gastric acid secretion³⁴ which can irritate mucosa of the stomach. The nicotine contained in cigarettes can constrict and injure the blood vessels of the stomach wall. Excessive smoking (>5%) can trigger the stomach to secrete greater amounts of acid due to irritation of the gastric mucosa, if the increase in acid in the stomach is not equivalent to the secretion of protective gastric juice. can cause injury to the stomach wall or gastritis. People who smoke more than ten cigarettes per day have a 3.68 times risk of developing gastritis.²⁴ In this study, it was found that the

gender frequency distribution of male patients was higher because men were more exposed to outside activities including eating and genetic variations that allowed men to be more are more susceptible to *Helicobacter pylori*, which causes gastritis, than women.²⁵

Danger sign

From the results of the study, 33 dyspepsia patients underwent endoscopic examination at RSUP Dr. M. Djamil Padang in 2019-2020, the danger signs indicating that the most frequent endoscopy examinations were gastrointestinal bleeding were 15 people (25.9%). This research is in line with research by Hendra Koncoro in 2013 which stated that the most frequently encountered danger sign was gastrointestinal bleeding (27.9%).⁷ There are two types of gastrointestinal bleeding, including upper and lower gastrointestinal bleeding. In cases of dyspepsia, it often occurs in the stomach or stomach, which is the upper digestive tract. Upper gastrointestinal bleeding can be caused by several factors, namely, reduced mucosal protective mechanisms, *H. pylori* infection, and increased use of NSAIDs.²¹ Gastrointestinal bleeding can occur due to bleeding in peptic ulcers as a result of gastritis and *H. pylori* infection. *H. pylori* invades the gastric epithelium, producing enzymes and toxins that worsen the condition of the gastric mucosa so that the stomach is easily damaged. 46 Vomiting can occur due to the stomach sending signals to chemoreceptors via the afferent nervous system and sympathetic nerves which cause peristaltic contractions and cause food that has entered the stomach. The intestine returns to the duodenum and stomach. As a result of the accumulation of food in the stomach, it causes disturbances in the functioning of the stomach and duodenum so that the duodenum stretches, causing strong contractions of the diaphragm and abdominal wall muscles, causing increased pressure in the stomach followed by expulsion of stomach contents.²⁶ Weight loss in dyspepsia patients can be associated with an increase in stomach acid which causes nausea and vomiting. so that patients experience a decrease in appetite and even anorexia so that the body's nutritional needs are not met. Increased stomach acid can also be caused by stress.²⁰

Endoscopic Image

From the results of research by 33 dyspepsia patients who had undergone endoscopic examination at RSUP Dr. M. Djamil Padang in 2019-2020 found that the most common endoscopy findings were gastritis, 25 (46.3%). Previous research stated that the most common diagnosis after endoscopy was gastritis. Similar to research by image at RSUP Dr. M. Djamil Padang in 2016 stated that the most common diagnosis was gastritis (61.11%).²⁷ In contrast to the results of examinations at RSUP Prof. Dr. R. D. Kandou by Dewantara 2019 stated that the diagnosis after endoscopy was esophagitis in 217 people.²⁸ Gastritis can occur due to the thinning of the stomach wall, reduced production of mucus as a barrier, so that the gastric mucosal lining is easily damaged and easily infected with *H. pylori*. 12 Gastritis can occur as a result *H. pylori* colonization in the gastric mucosa which causes the induction of an inflammatory response, especially in T-helper 1 (Th1) cells that cause gastritis. The *H. pylori* inflammatory response is characterized by the presence of neutrophils, mononuclear cells, Th1 cells, which are related to the patient's immunity. The inflammatory process in the stomach

causes the formation of reactive oxygen species (ROS) which causes DNA mutations. Chronic gastritis causes cell atrophy to lead to intestinal metaplasia, dysplasia and causes stomach cancer.²⁹ In the results of this study, it was found that the frequency distribution of the highest endoscopic picture was gastritis, this could be caused by the low level of knowledge about gastritis and dietary errors such as frequently consuming irritating foods which have now become a habit that can cause gastritis.³⁰ Disease gastritis is a disease that often occurs in society, but this disease is often underestimated by sufferers, characterized by the patient's low level of knowledge.³¹ The results of this study are not in accordance with the theory that alarm symptoms (danger signs) found in dyspepsia patients tend to be a form of intestinal malignancy. Chronic H. pylori infection is an important risk factor for gastric malignancy, where H. pylori colonization can be caused by a high salt diet which causes tissue damage and changes in the viscosity of the stomach wall.¹⁴ The risk of gastric cancer can also be increased by the food consumed, such as smoked or pickled foods, foods that are preservatives and contain lots of salt and nitrites.²⁹ In the province of West Sumatra, residents commonly use various spices in cooking such as ginger, galangal, turmeric, leaves. such as bay leaves, lime leaves, turmeric leaves, ruku-ruku leaves and other dried spices, these spices are known as antioxidants which can prevent malignancies, one of which is gastrointestinal malignancy.³²

CONCLUSION

Based on the results of research that has been carried out regarding the endoscopy results of dyspepsia patients at RSUD Dr. M. Djamil in 2019-2020 with a sample of 33 people, it can be concluded that:

1. The largest age category is age 56-65.
2. The most common gender is male.
3. The most dangerous sign found is gastrointestinal bleeding.
4. The most common endoscopy finding is gastritis.

REFERENCE

1. Verma A, Verma D, Bansal P, Bansal A. The study of risk factors associated with dyspepsia. *Int J Biomed Adv Res* 2016; 7. doi:10.7439/ijbar.v7i9.3612.
2. Herman H, Lau SHA. Faktor Risiko Kejadian Dispepsia. *J Ilm Kesehatan Sandi Husada* 2020; 12. doi:10.35816/jiskh.v12i2.471.
3. Suryanti. Karakteristik Penderita Dispepsia Pada Kunjungan Rawat Jalan Praktek Pribadi Dr. Suryanti Periode Bulan Oktober-Desember 2018. *J Penelit dan Kaji Ilmu* 2019; XIII.
4. Setiyawati R, Hastuti D. Pola Peresepan Obat Dispepsia Pada Pasien Dewasa Di Klinik Kimia Farma 275 Yogyakarta Periode Januari-April 2019.
5. J Kefarmasian Akfarindo 2021. doi:10.37089/jofar.vi0.99. 5 Putra AAGW, Wibawa IDN. Gambaran hasil pemeriksaan endoskopi pada pasien dispepsia di Rumah Sakit Umum Pusat (RSUP) Sanglah tahun 2015. *Intisari Sains Medis* 2020; 11. doi:10.15562/ism.v11i1.529.
6. Marcellus Simadibrata K, Dadang Makmun, Murdani Abdullah, Ari Fahrial Syam, Achmad Fauzi, Kaka Renaldi, Hasan Maulahela APU.

- Konsensus nasional penatalaksanaan dispepsia dan infeksi *Helicobacter pylori*.
2014<http://pbpgi.or.id/wpcontent/uploads/2015/10/KonsensusDispepsia-dan-Helicobater-Pylori-2014.pdf>.
7. Koncoro H, Mariadi IK, Somayana G, Suryadarma I, Purwadi N, Wibawa I. Age and Alarm Symptoms Predict Upper Gastrointestinal Malignancy among Patients with Dyspepsia. 2013; 14: 74.
 8. Kaminang GA, Waleleng BJ, Polii EB. Profil endoskopi gastrointestinal di RSUP Prof. Dr. R. D. Kandou Manado periode Januari 2016 – Agustus 2016. *e-CliniC* 2016; 4. doi:10.35790/ecl.4.2.2016.14562.
 9. Yuriana Putri C, Arnelis A, Asterina A. Gambaran Klinis dan Endoskopi Saluran Cerna Bagian Atas Pasien Dispepsia di Bagian RSUP Dr. M. Djamil Padang. *J Kesehat Andalas* 2016; 5. doi:10.25077/jka.v5i2.519.
 10. Gunawan DF, Waleleng BJ, Polii EBI. Profil pasien endoskopi gastrointestinal di RSUP Prof. Dr. R. D. Kandou periode Januari 2018 - Agustus 2019. *e-CliniC* 2019; 7. doi:10.35790/ecl.7.2.2019.26834.
 11. Mulandani R. Pola Penggunaan Obat Pada Pasien Dispepsia Rawat Jalan Di RSUD H.Abdul Manap Kota Jambi. *Parapemikir J Ilm Farm* 2020; 9. doi:10.30591/pjif.v9i2.1885.
 12. Pramita L, Uwan willy b, Kahtan muhammad ibnu. gamabran hasil pemetiksaan esofagogastroduodenoskopi pada penderita dispepsia di rumah sakit umum santo antonius pontianak tahun 2015-2016. 2018; 4: 7.
 13. Astrid Savitri. Waspadalah ! Masuk Usia 40 Keatas. *PustakaBaruPress: yogyakarta*.
 14. Maria, Lady. Hubungan Antara Stress Dan Kebiasaan Makan Terhadap Kejadian Dyspepsia Pada Mahasiswa Fakultas Kedokteran Universitas Hasanuddin Angkatan 2018. *Fak Kedokt Univ Hasanuddin Makassar* 2018.
 15. Muflih M, Najamuddin N. Hubungan pola makan dan tingkat stress dengan kejadian dispepsia di Rumah Sakit Sundari Medan 2019. *Indones Trust Heal J* 2020; 3. doi:10.37104/ithj.v3i2.56.
 16. Ratnadewi NK, Lesmana CBJ. Hubungan strategi coping dengan dispepsia fungsional pada pasien di poliklinik penyakit dalam rumah sakit umum daerah wangaya Denpasar. 2018; 49.
 17. Fridalni N, Guslinda, Minropa A, Febriyanti, Sapardi vivi sofya. *Pengenalan Dini Penyakit Degeneratif*. 2019; 1.
 18. KURNIASARI DR. evaluasi rasionalitas obat antiplatelet pada pasien stroke iskemik di instalasi rawat inap RS X Periode 2016. 2017.
 19. Megawati S, Rahmawati1 R. Evaluasi Penggunaan Obat Antiplatelet Pada Pasien Stroke Iskemik D Instalsi Rawat Inap Rumah Sakit Umum Kabupaten Tangerang Tahun 2019. 2021.
 20. Sartika I, Rositasari S, Bintoro W. Hubungan Pola Makan Dan Stres Dengan Kejadian Gastritis Di Puskesmas Pajang Surakarta. 2020; 13.
 21. Sugiarta IGRM, Sumandi IK. The endoscopy profile of patients with Gastrointestinal Bleeding (GIB) at Klungkung Regional General Hospital, Bali, Indonesia during the 2014-2018 period. *Intisari Sains Medis* 2020; 11. doi:10.15562/ism.v11i1.565.



22. Musnelina L, A.R DGA. Profil Kesesuaian Terapi Obat Dispepsia Terhadap Formularium Pada Pasien Rawat Jalan Rumah Sakit Tk. IV Cijantung Jakarta, Jakarta Timur, Periode Januari – Desember 2016. 2019.
23. Saputra B. Karakteristik Penderita Dan Gambaran Histopatologi Gastritis Kronis Yang Disebabkan Oleh Infeksi Helicobacter Phylori Di Rumah Sakit Hasan Sadikin Bandung Periode 2015-2016. 2018.
24. Astuti DAOP, Wulandari D. Stress dan perilaku merokok berhubungan dengan kejadian gastritis. 2020; 10.
25. Lee I, Lee H, Kim M. Ethnic difference of Helicobacter pylori gastritis: Korean and Japanese gastritis is characterized by male- and antrum - predominant acute foveolitis in comparison with American gastritis. ; 11 .
26. Nento DH, Ramlan Ramli R, Da Lima MR. Gambaran Klinis Penderita Dispepsia Yang Berobat DI Bagian Penyakit Dalam RSUD Anutapura Palu Tahun 2018. Med Alkhairaat J Penelit Kedokt dan Kesehat 2019; 1. doi:10.31970/ma.v1i2.
27. Muya Y, Murni AW, Herman RB. Karakteristik Penderita Dispepsia Fungsional yang Mengalami Kekambuhan di Bagian Ilmu Penyakit Dalam RSUD Dr. M. Djamil Padang, Sumatera Barat Tahun 2011. J Kesehatan Andalas 2015; 4. doi:10.25077/jka.v4i2.279.
28. Dewantara F, Waleleng BJ, Umboh O. Profil Gambaran Endoskopi di Pusat Endoskopi KSM Ilmu Penyakit Dalam RSUD Prof. Dr. R. D. Kandou Periode Januari 2016 – Desember 2017. e -CliniC 2018; 6: 105 – 109.
29. Chudri J. Kanker lambung: kenali penyebab sampai pencegahannya. J Biomedika dan Kesehat 2020; 3: 146.
30. Masnar laras rizkiana. Pengaruh Media Video Petis (Pencegahan Gastritis) Terhadap Perubahan Pengetahuan Remaja Tentang Gastritis Di SMA Negeri10 Kota Bengkulu. 2020.
31. KUSMIATI M. literature review : pengetahuan tentang komplikasi pada penderita gastritis. 2020.
32. Liputo NI. Hidup Sehat dengan Makanan Minang. Univ andalas