Volume 5, No. 10 October, 2024
p ISSN 2723-6927-e ISSN 2723-4339

CASE STUDY : OBSERVATION OF REDUCING HEARTBURN PAIN IN GASTROESOPHAGEAL REFLUX DISEASE (GERD) WITH HYPNOTHERAPY

Yudhistira Hutomo
General Practitioner and Hypnotherapist, Lee Chen Thung Clinic, Jakarta, Indonesia
Email: dokteryudhis@gmail.com

ABSTRACT
Hypnotherapy is a form of psychological treatment that utilizes hypnosis to assist in addressing specific mental and physical ailments. It can also be employed for altering habits. Hypnotherapy operates by inducing a hypnotic state in the subject, lowering brain waves to alpha-theta levels for relaxation and enhanced acceptance of suggestions in the subconscious. The aim is to improve psychological issues, emotions, and conduct. The study was carried out on two patients at the Lee Chen Thung Primary Clinic in Jakarta, Indonesia. Sampling was conducted by adhering to specific criteria for selection and administering the GERD-Q questionnaire. The patients included in the study had to have GERD-Q scores higher than 7 and frequently use PPIs for their stomach issues. Management of GERD can be done with drug therapy or pharmacology and non-pharmacology therapy. One of the non-pharmacology therapies that can be given is hypnotherapy. Patients who satisfied the criteria were provided with hypnotherapy in order to alleviate their heartburn symptoms. The process of hypnotherapy can help the body to stimulate the release of endorphins. Endorphins act as the body's innate pain relievers. Following hypnotherapy, patients underwent evaluation for 1 week using numeric rating scale. Both patients experienced a decrease in pain levels following hypnotherapy.

Keywords: Hypnotherapy, GERD, heartburn

Introduction

GERD is characterized by stomach contents flowing back into the esophagus, leading to troubling symptoms and/or complications (Fock KM et al, 2008). GERD is a condition where stomach fluids containing different substances flow back into the esophagus, leading to symptoms like heartburn, regurgitation, epigastric pain, difficulty swallowing, and painful swallowing (Martinez-Serna et al., 1999). Furthermore, patients might also encounter other signs like chest pain not related to the heart, feeling bloated, experiencing nausea, having difficulty swallowing, feeling full quickly, and suffering from heartburn, either with or without common reflux symptoms. This unique display is identified as a typical trait of Asian patients with GERD, where non-cardiac chest pain is a frequent symptom. There are two categories of individuals with GERD: those with erosive esophagitis showing esophageal mucosal damage on endoscopy (Erosive Esophagitis Disease/ERD) and those with troublesome reflux symptoms but no mucosal damage (Non-Erosive Esophagitis Disease/NERD) (Fock KM et al, 2008).

Data from the United States reveals that 20% of adults experience symptoms of esophageal reflux (heartburn) and/or acid regurgitation weekly, while over 40% have these symptoms monthly (Sontag, 1990). In Asia, including Indonesia, the frequency of GERD and its complications is typically lower than in western nations, but recent data suggests that the frequency is rising. This is a result of changes in lifestyle that raise the likelihood of developing GERD, like smoking and being overweight (Fock et al., 2008).

GERD is a complex condition in which esophagitis may develop due to the backflow of stomach contents into the esophagus. Included in the stomach contents that can increase the risk of harm from refluxed materials are: stomach acid, pepsin, bile salts, and pancreatic enzymes (Dickman & Fass, 2006). Out of all these, gastric acid has the greatest potential for causing harm. Various factors contribute to the development of GERD, such as Helicobacter pylori infection, motility issues, visceral hypersensitivity, and lifestyle habits like stress (Quigley, 2003).

To diagnose GERD, a careful anamnesis is needed to identify the specific symptoms of GERD, namely heartburn and/or regurgitation that occurs after eating. In Asia, heartburn and regurgitation do not reliably indicate the presence of GERD. Nevertheless, experts concur that both symptoms are typical of GERD (Fock et al., 2008). Examination is also an important part in diagnosing GERD, such as laboratory examinations, ECG, USG, chest X-ray, and others as indicated before more sophisticated examinations such as endoscopy are carried out. The GERD-Q questionnaire is a diagnostic tool that can be utilized to diagnose GERD. The GERD questionnaire (GERD-Q) is a tool designed to assist in diagnosing GERD and evaluating the effectiveness of treatment. Evaluation of over 300 primary care patients found that the GERD-Q demonstrated sensitivity and specificity rates of 65% and 71%, mirroring the findings of gastroenterologists. Furthermore, the GERD-Q also demonstrated its capability to evaluate the relative influence of GERD on patients' quality of life and aid in selecting treatment (Jones et al., 2009).

No.	Question	Frequency of score (point) for symptoms			
		0 day	1 day	2-3 days	4-7 days
1.	How often do you experience the sensation of burning behind your breastbone / sternum (heartburn)?	0	1	2	3
2.	How often do you experience the gastric content backing up into your throat / mouth (regurgitation)?	0	1	2	3
3.	How often do you feel epigastric pain?	3	2	1	0
4.	How often do you feel nauseated?	3	2	1	0
5.	How often do you have difficulty to have night sleep due to the burning sensation in the chest (heartburn) and/or the backing up of abdominal content?	0	1	2	3
6.	How often do you take additional medication for treating the burning sensation in the chest (heartburn) and/or the backing up of abdominal content (regurgitation), other than prescribed by your doctor? (such as the over the counter drugs for treatment of stomach complaints)	0	1	2	3
	Result	If your GERDQ points <7, you probably do not have GERD. If your GERDQ points is 8-18, you probably have GERD			

Table 1. GERD-Q (Acta Medica Indonesiana, 2014)

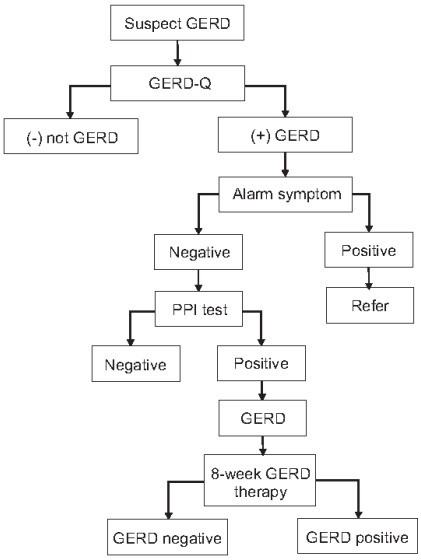

Figure 1. Algorithm of treatment based on diagnostic process in primary health care services (Acta Medica Indonesiana, 2014)

PPI testing can confirm the diagnosis in patients exhibiting typical symptoms without any red flags or risk of Barrett's esophagus. This test involves administering a higher amount of PPI for 1-2 weeks without first conducting an endoscopic examination. If symptoms improve with PPI treatment but return when PPI therapy is discontinued, then the diagnosis of GERD can be established. If there is a clinical improvement of more than 50% within 1 week, the test result is considered positive (Jones et al., 2009). Antacids, prokinetics, H2 receptor antagonists, Proton Pump Inhibitors (PPIs), and Baclofen are medications used to alleviate symptoms of GERD (Storr et al., 2000). Among all the medications listed, PPIs are the most efficient in alleviating symptoms and treating esophageal lesions in GERD (Jones et al., 2009). Furthermore, non-pharmacological interventions are necessary, including reducing excess body weight and elevating the head by about 15-20 cm during sleep. Other measures like quitting smoking, avoiding alcohol, limiting acidic and reflux-inducing foods and medications, eating moderately, and having dinner at least 3 hours before bedtime are also important (Kaltenbach et al., 2006). Hypnotherapy is a type of psychological therapy that involves using hypnosis to help with particular mental and physical issues. It can also be used to change behaviors. Hypnotherapy works by putting the subject into a hypnotic state, reducing brain waves to alpha-theta levels for relaxation and increased receptivity to suggestions in the subconscious mind. The objective is to improve mental health, feelings, and behavior. One of the benefits of hypnotherapy is for pain management. Ardinata et al 2022 research shows that hypnosis is proven to help reduce pain intensity in patients at the Adi Luhur Mesuji health center. Therefore, the researcher conducted this case study (Ardinata et al., 2023). In 2015, Riehl ME et al in their small pilot study shows that hypnotherapy was recently established as a preferred intervention for functional heartburn. There were consistent and significant changes in heartburn symptoms, visceral anxiety and quality of life, and a trend for improvement in catastrophizing for patients who enrolled in a 7-session esophageal-directed hypnotherapy protocol (Riehl et al., 2016).

Research Methods

The study was carried out on two patients at the Lee Chen Thung Primary Clinic in Jakarta, Indonesia. Sampling was conducted by adhering to specific criteria for selection and administering the GERD-Q questionnaire. The patients included in the study had to have GERD-Q scores higher than 7 and frequently use PPIs for their stomach issues. The patients were given the GERD-Q questionnaire for inclusion criteria and asked to rate their usual heartburn pain using the NRS or Numeric Rating Scale. This scale assesses how painful a person's complaint is based on a number from 0-10 where 0 is no pain and 10 is very painful. (Wong & Baker, 2012) tested the NRS measuring tool for validity and reliability, resulting in values of 0.56-0.90 for interval consistency and 0.75-0.89 for Alpha Cronbach, indicating reliability. There were two patients who met the inclusion criteria and were given hypnotherapy intervention. After conducting hypnotherapy sessions twice a week, the patients were re-observed regarding their pain intensity.

Results and Discussion

Patient A 28 years old, female, complained heartburn and epigastric pain that often makes it difficult to sleep for the past 1 month and has consumed PPI, namely omeprazole 2x20mg. The pain that the patient said based on the pain scale was 7. Patient B 28 years old, male said that his complaint for the past 2 weeks was experiencing acid rising to his throat and mouth almost every night accompanied by heartburn with a pain scale of 6. The patient has also been given omeprazole therapy 2x20mg. In both patients, smoking habits were denied, their body weight was ideal and they had never undergone any supporting examinations.

Table 1. Demographic Data

Respondent Data	Patient A	Patient B
Age	28 years	28 years
Sex	Female	Male
Education	Diploma	Diploma
GERD-Q Score	10	12
Treatment	Hypnotherapy	Hypnotherapy

Table 2. Factors Associated with Heartburn

Respondent Factor	Patient A		Patient B	
	Pre-Treatment	Post Treatment	Pre-Treatment	Post Treatment
Pain Scale	7	3	6	2

Discussion

This case study was conducted on 2 patients who met the inclusion criteria. Both patients had a GERD-Q score of more than 7 and often consumed PPI drugs due to recurrent stomach complaints. In this case, the patients were the same age, namely 28 years old. The patient had a diploma education background. A person's age and level of education can determine a person's pain threshold. The older a person is and the higher their level of

education, the easier it is for a person to come to terms with the pain they experience (Potter & Perry, 2006).

The initial patient was a 28-year-old female with a diploma level of education, experiencing heartburn and epigastric pain leading to difficulty sleeping for the last month, and taking omeprazole 2x20mg for relief. The patient's reported pain level on the pain scale was 7. The GERD-Q score for this patient was 10. The second patient, a 28-year-old man with a diploma education background, had been experiencing acid reflux rising to his throat and mouth almost every night for the past 2 weeks, along with heartburn rated at a pain level of 6. The patient is also receiving a prescription for omeprazole at a dose of 2x20mg. Both patients qualified for the case study as they both had a GERD-Q score of 12. Hypnotherapy was performed on both patients to help reduce the heartburn pain experienced by both patients.

Management of GERD can be done with drug therapy or pharmacology and non-pharmacology therapy. One of the non-pharmacology therapies that can be given is hypnotherapy. Hypnotherapy is a form of psychological therapy that utilizes hypnosis to address specific mental and physical problems. It can also be utilized for altering behaviors. Hypnotherapy operates by inducing the individual into a hypnotic state, lowering brain wave activity to alpha-theta levels to promote relaxation and enhance openness to suggestions in the subconscious. The goal is to enhance mental well-being, emotions, and actions. One advantage of hypnotherapy is its ability to help manage pain. The process of hypnotherapy can help the body to stimulate the release of endorphins. Endorphins act as the body's innate pain relievers. This set of peptide hormones is discharged by the hypothalamus and pituitary gland when experiencing pain or stress, and it serves to alleviate pain as well as induce an overall sense of happiness. These hormones are named after the term "endogenous morphine." "Produced internally," endogenous refers to substances made within our bodies that imitate the effects of morphine, an opioid painkiller (Watson et al., 2012).

In both patients, heartburn pain was measured using the Numeric Rating Scale. Pain was measured before and after the hypnotherapy process. Before hypnotherapy, the first patient had a pain of 7 and the second patient had a pain of 6. Hypnotherapy therapy was performed on both patients. The pain in both patients was measured again using the Numeric Rating Scale and the results showed that the pain in the first and second patients decreased. The first patient had a reduction in pain from 7 to 3 and the second patient also showed a decrease from 6 to 2. This proves that hypnotherapy can help significantly reduce heartburn pain in patients with gastroesophageal reflux disease (GERD). The small number of patients used in this case study needs to be considered as a weakness in this case study. It is important that every clinician also considers hypnotherapy as one of the treatments in reducing heartburn pain in GERD patients.

Conclusion

GERD is a condition where stomach fluids containing different substances flow back into the esophagus, leading to symptoms like heartburn, regurgitation, epigastric pain, difficulty swallowing, and painful swallowing. Management of GERD can be done with drug therapy or pharmacology and non-pharmacology therapy. One of the non-pharmacology therapies that can be given is hypnotherapy. In this case study patients were selected using the GERD-Q criteria

and heartburn pain was measured before and after the hypnotherapy session using the Numeric Rating Scale. The initial patient's pain went down from 7 to 3, while the second patient's pain also dropped from 6 to 2. This demonstrates that hypnotherapy can effectively decrease heartburn discomfort in individuals suffering from gastroesophageal reflux disease (GERD).

REFERENSI

Ardinata, A., Agustriani, F., Nirwana, N., Hernanda, R., & Susanto, A. (2023). The effect of giving the five-finger hypnosis technique on reducing pain intensity in Gastroesophageal Reflux Disease (GERD) patients at the health center Adi Luhur Mesuji. *Jurnal Aisyah: Jurnal Ilmu Kesehatan*, *8*(S1), 323–326.

Dickman, R., & Fass, R. (2006). The pathophysiology of GERD. In *Gastroesophageal Reflux Disease: Principles of Disease, Diagnosis, and Treatment* (pp. 13–22). Springer.

Fock, K. M., Talley, N. J., Fass, R., Goh, K. L., Katelaris, P., Hunt, R., Hongo, M., Ang, T. L., Holtmann, G., & Nandurkar, S. (2008). Asia-Pacific consensus on the management of gastroesophageal reflux disease: update. *Journal of Gastroenterology and Hepatology*, *23*(1), 8–22.

Jones, R., Junghard, O., Dent, J., Vakil, N., Halling, K., Wernersson, B., & Lind, T. (2009). Development of the GerdQ, a tool for the diagnosis and management of gastro-oesophageal reflux disease in primary care. *Alimentary Pharmacology & Therapeutics*, *30*(10), 1030–1038.

Kaltenbach, T., Crockett, S., & Gerson, L. B. (2006). Are lifestyle measures effective in patients with gastroesophageal reflux disease?: an evidence-based approach. *Archives of Internal Medicine*, *166*(9), 965–971.

Martinez-Serna, T., Tercero Jr, F., Filipi, C., Dickason, T., Watson, P., Mittal, S., & Tasset, M. (1999). Symptom priority ranking in the care of gastroesophageal reflux: a review of 1,850 cases. *Digestive Diseases*, *17*(4), 219–224.

Potter, P. G., & Perry, A. G. (2006). Buku Ajar Fundamental Keperawatan: Konsep, Proses, dan Praktik vol 2 edisi 4, trans. *Komalasari, R et Al., EGC, Jakarta*.

Quigley, E. M. M. (2003). New developments in the pathophysiology of gastro-oesophageal reflux disease (GERD): implications for patient management. *Alimentary Pharmacology & Therapeutics*, *17*, 43–51.

Riehl, M. E., Pandolfino, J. E., Palsson, O. S., & Keefer, L. (2016). Feasibility and acceptability of esophageal-directed hypnotherapy for functional heartburn. *Diseases of the Esophagus*, *29*(5), 490–496.

Sontag, S. J. (1990). The medical management of reflux esophagitis. Role of antacids and acid inhibition. *Gastroenterology Clinics of North America*, *19*(3), 683–712.

Storr, M., Meining, A., & Allescher, H.-D. (2000). Pathophysiology and pharmacological treatment of gastroesophageal reflux disease. *Digestive Diseases*, *18*(2), 93–102.

Watson, K., Chang, E., & Johnson, A. (2012). The efficacy of complementary therapies for agitation among older people in residential care facilities: a systematic review. *JBI Evidence Synthesis*, *10*(53), 3414–3486.

Wong, D. L., & Baker, C. M. (2012). Wong-Baker faces pain rating scale. *Pain Management Nursing*.