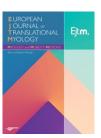
European Journal of Translational Myology





pISSN: 2037-7452 eISSN: 2037-7460

https://www.pagepressjournals.org/index.php/bam/index

Publisher's Disclaimer. E-publishing ahead of print is increasingly important for the rapid dissemination of science. The *Early Access* service lets users access peer-reviewed articles well before print / regular issue publication, significantly reducing the time it takes for critical findings to reach the research community.

These articles are searchable and citable by their DOI (Digital Object Identifier).

The **European Journal of Translational Myology** is, therefore, e-publishing PDF files of an early version of manuscripts that undergone a regular peer review and have been accepted for publication, but have not been through the typesetting, pagination and proofreading processes, which may lead to differences between this version and the final one.

The final version of the manuscript will then appear on a regular issue of the journal.

E-publishing of this PDF file has been approved by the authors.

Eur J Transl Myol 2024 [Online ahead of print]

To cite this Article:

Khosravi M, Kavoosi A, Rezapour-Nasrabad R, et al. Integrating psychological assessment in achalasia management: addressing mental health to enhance patient outcomes. Eur J Trans Myol doi: 10.4081/ejtm.2024.12727



Licensee PAGEPress, Italy

Note: The publisher is not responsible for the content or functionality of any supporting information supplied by the authors. Any queries should be directed to the corresponding author for the article.

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article or claim that may be made by its manufacturer is not guaranteed or endorsed by the publisher.



Integrating psychological assessment in achalasia management: addressing mental health to enhance patient outcomes

Mohsen Khosravi, 1,2 Ahoora Kavoosi,3 Rafat Rezapour-Nasrabad,4 Melody Omraninava,5 Alireza Nazari Anamagh,6 Seyed Teymur Seyedi Asl7

¹Department of Psychiatry, School of Medicine, Zahedan University of Medical Sciences, Zahedan, Iran; ²Health Promotion Research Center, Zahedan University of Medical Sciences, Zahedan, Iran; ³Department of Clinical Psychology, Science and Research Branch, Islamic Azad University, Tehran, Iran; ⁴Department of Psychiatric Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran; ⁵Hospital Administration Research Center, Sari Branch, Islamic Azad University of Medical Sciences, Sari, Iran; ⁶Department of Humanities and Social Sciences, Science and Research Branch, Islamic Azad University, Tehran, Iran; ⁷Department of Psychology, Mohaghegh Ardabili University, Ardabil, Iran

Abstract

Achalasia is a chronic esophageal disorder with a generally favorable prognosis; however, approximately 20% of patients experience persistent or recurrent symptoms despite therapeutic interventions. These ongoing symptoms can significantly diminish both disease-specific and overall quality of life. Although the physical manifestations of achalasia, such as regurgitation, dysphagia, chest pain, and weight loss, are well-documented and assessed

3

using the Eckardt score, the psychological burden of the disease remains underexplored. Individuals with achalasia are at an increased risk of mental health issues, including depression, anxiety, and somatization, exacerbated by the emotional strain and social limitations imposed by the disease. Despite this, psychological impacts are often overlooked in clinical settings, leading to inadequate mental health support for these patients. This article underscores the necessity for prompt psychological assessments during the diagnosis of achalasia to better address these mental health challenges and improve overall patient care.

Key words: achalasia, mental health, patients.

Achalasia is a rare primary esophageal motor disorder, occurring with an annual incidence rate of 1-5 cases and a prevalence rate of 7-32 cases per 100,000 people. However, determining the true global prevalence of achalasia is challenging due to the limited availability of advanced diagnostic criteria and technology. 1,2 This clinical condition impacts both sexes equally and shows no preference for any particular racial group. It can also occur at any age but is more common in older adults, typically diagnosed between ages 30 and 60.1

The cause of achalasia remains unidentified.³ Extensive and varied research indicates that the primary cause of achalasia is neurodegeneration occurring at the Lower Esophageal Sphincter (LES). This neurodegeneration involves the specific loss of inhibitory neurons within the myenteric plexus located at the lower end of the esophagus. Several factors may contribute to this neurodegeneration, including genetic predispositions and environmental triggers that initiate inflammatory and immune responses.^{2,3}

The determination of the condition relies on the patient's medical history, a barium esophagogram, and tests of esophageal motility. Advanced diagnostic techniques like highresolution manometry are instrumental in forecasting treatment outcomes in achalasia by analyzing esophageal pressure topography, which delineates three distinct achalasia phenotypes (I-III). Research indicates that phenotypes I and II exhibit a more favorable response to treatment compared to phenotype III.⁵ While achalasia is not curable, over 90% of patients experience significant improvement following treatment. The therapeutic approaches, including pneumatic dilation, both endoscopic and surgical myotomy, and pharmacological treatments (e.g., calcium channel blockers, nitrates, sildenafil, and terbutaline), focus on decreasing LES pressure to aid in the gravitational and hydrostatic movement of food and liquids through the esophagus.⁷ Initial treatment recommendations, whether opting for graded pneumatic dilatation or laparoscopic surgical myotomy accompanied by partial fundoplication, should consider factors such as the patient's age, gender, preferences, and the expertise available at the treating institution. 8 While the prognosis for individuals with achalasia is generally favorable, symptoms may persist or recur in about 20% of patients despite therapeutic efforts. This problem can lead to significant long-term reductions in both disease-specific and overall quality of life.⁹ Nonetheless, there is a limited amount of research exploring the psychological burden of achalasia, specifically concerning depression, anxiety, and somatization.9

Several factors can heighten the likelihood of mental health issues in individuals diagnosed with achalasia. Those afflicted with this chronic illness are at an increased risk of experiencing depression, anxiety, and somatization. The emotional strain from the symptoms, coupled with social and functional limitations, often exacerbates feelings of depression, anxiety, and somatization. In this respect, many achalasia patients have noted that their disease interferes with their social engagements, relationships, and recreational

pursuits. ⁹⁻¹¹ Nevertheless, the Eckardt score remains the predominant benchmark for assessing the severity of achalasia symptoms, concentrating on four primary indicators: regurgitation, dysphagia, chest pain, and weight loss. ¹² In contrast to these physical symptoms, the psychological impacts and burdens associated with achalasia frequently receive less attention and are underappreciated. The lack of detailed assessments for specific mental health issues reduces their clinical importance and limits healthcare providers' ability to recommend targeted interventions. Therefore, it is crucial to perform a prompt psychological assessment during the diagnosis of achalasia. ^{12,13} However, Hanschmidt *et al.* ⁹ discovered that the incidence rates of depression and anxiety among female achalasia patients were significantly higher, ranging from 3.04 to 7.87 times and 3.10 times respectively, compared to the general population. Such disparities were not observed in male patients, suggesting that being female may increase the susceptibility to psychological distress associated with achalasia. Consequently, it is imperative to focus more on the psychological well-being of female patients with achalasia in medical settings and to explore additional risk factors in future studies.

Psychological evaluation is significant in diagnosing achalasia for four primary reasons. First, psychological distress may impact the effectiveness of treatment adherence and monitoring in achalasia, potentially influencing the clinical outcomes for patients. When the primary objective in managing achalasia is to enhance quality of life, it is crucial not to overlook the provision of psychological support. Greater focus should be directed towards addressing the psychological manifestations associated with achalasia. Second, while treatments like peroral endoscopic myotomy can enhance the psychological well-being of individuals with achalasia, the potential for postoperative gastroesophageal reflux introduces a psychological strain that warrants consideration. On one side, the reduced quality of life stemming from gastroesophageal reflux may lead to psychological distress; conversely, the emergence of

such distress can exacerbate the underlying esophageal symptoms. 13 Recent studies have established that psychological factors, rather than physiological ones, play a pivotal role in determining the severity of symptoms in patients suffering from persistent heartburn and reflux issues. 14 These psychological factors encompass general psychological distress, including depression and state anxiety; health-related psychological distress, involving visceral and pain anxiety; and esophageal-specific psychological distress, such as esophageal hypervigilance. Consequently, it is crucial to monitor the psychological state of individuals with achalasia not only prior to treatment but also throughout the progression of the condition. ^{13,14} Third, achalasia could potentially be influenced by psychological factors such as anxiety and depression. 15-17 The severity of swallowing difficulties, or dysphagia, is often linked to concurrent psychological disorders, particularly esophageal hypervigilance and visceral anxiety related to the severity of dysphagia. 18 While it is plausible that anxiety and depression might also impact the symptoms of achalasia, there is currently limited solid evidence to confirm this connection. 15-18 Fourth, patients with achalasia often experience social isolation due to their symptoms. The fear of eating in public or the embarrassment of regurgitation can lead to avoidance of social situations. This isolation can further contribute to feelings of depression and anxiety. 19 Addressing the psychological mechanisms that influence a patient's personal experience of their illness, including their coping mechanisms, psychological adaptability, and control of emotions, could enhance patient outcomes in achalasia. Established psychological treatments like cognitive behavioral therapy have demonstrated effectiveness in reducing depression and anxiety among those with chronic diseases. Additionally, newer methods such as acceptance and commitment therapy could be especially effective in alleviating the distress associated with chronic conditions. ²⁰⁻²²

In conclusion, integrating psychological considerations into the management of achalasia is essential for a holistic approach to patient care. By addressing the mental health aspects

7

alongside the physical symptoms, healthcare providers can offer more comprehensive and

effective treatment. This integrated approach not only alleviates the physical discomfort

associated with achalasia but also enhances the overall quality of life for patients, helping

them to lead more fulfilling lives despite their condition.

List of acronyms

LES - Lower esophageal sphincter

Correspondence: Mohsen Khosravi, Department of Psychiatry, School of Medicine,

Zahedan University of Medical Sciences, Postal Code: 9813913777, Zahedan, Iran.

Tel.: +98-5433522636 - Fax: +98-5433518352.

E-mail: dr_khosravi2016@yahoo.com

ORCID: 0000-0003-2970-6309

Co authors

Ahoora Kavoosi

E-mail: ahoora.kavoossi@yahoo.com

ORCID: 0000-0003-4324-7014

Rafat Rezapour-Nasrabad

E-mail: <u>rezapour.r@sbmu.ac.ir</u>

ORCID: 0000-0002-7157-586X

Melody Omraninava

E-mail: omraninavamelody@gmail.com

ORCID: 0000-0002-2322-6243

Alireza Nazari Anamagh

E-mail: <u>alirezanezeri@gmail.com</u>

ORCID: 0000-0001-5898-9593

Seyed Teymur Seyedi Asl

E-mail: <u>teymur.psychology@gmail.com</u>

ORCID: 0000-0001-7559-0533

Contributions: MK, conceptualization, investigation, writing-original draft preparation, writing-review and editing; AK, RRN, MO, ANA, STSA, writing-review and editing. The authors have read and agreed to the published version of the manuscript.

Conflict of interest: the author declares that he has no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

Funding: this article did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Ethics approval and consent to participate: not applicable.

References

- [1] Jia X, Chen S, Zhuang Q, et al. Achalasia: the current clinical dilemma and possible pathogenesis. J Neurogastroenterol Motil 2023;29:145-55.
- [2] Furuzawa-Carballeda J, Barajas-Martínez A, Olguín-Rodríguez PV, et al. Achalasia alters physiological networks depending on sex. Sci Rep 2024;14:2072.
- [3] Savarino EV, Salvador R, Ghisa M, et al. Research gap in esophageal achalasia: a narrative review. Dis Esophagus 2024: doi: 10.1093/dote/doae024. Online ahead of print.
- [4] Blonski W, Slone S, Richter JE. Update on the diagnosis and treatment of achalasia. dysphagia. 2023;38:596-608.
- [5] Vázquez-Elizondo G, Remes-Troche JM, Valdovinos-Díaz MÁ, et al. Diagnostic differences in high-resolution esophageal motility in a large Mexican cohort based on geographic distribution. Dis Esophagus 2024: doi: 10.1093/dote/doae049. Online ahead of print.
- [6] Gong F, Li Y, Ye S. Effectiveness and complication of achalasia treatment: A systematic review and network meta-analysis of randomized controlled trials. Asian J Surg 2023;46:24-34.
- [7] Bramer S, Ladell A, Glatzel H, et al. Medical management of painful achalasia: a patient-driven systematic review. Dis Esophagus 2024;37:doae005.

- [8] Modayil RJ, Zhang X, Rothberg B, et al. Peroral endoscopic myotomy: 10-year outcomes from a large, single-center US series with high follow-up completion and comprehensive analysis of long-term efficacy, safety, objective GERD, and endoscopic functional luminal assessment. Gastrointest Endosc 2021;94:930-42.
- [9] Hanschmidt F, Treml J, Deller J, et al. Psychological burden of achalasia: Patients' screening rates of depression and anxiety and sex differences. PLoS One 2023;18:e0285684.
- [10] Loosen SH, Kandler J, Luedde T, et al. Achalasia is associated with a higher incidence of depression in outpatients in Germany. PLoS One 2021;16:e0250503.
- [11] Xu JQ, Geng ZH, Liu ZQ, et al. Landscape of psychological profiles in patients with esophageal achalasia. Clin Transl Gastroenterol 2023;14:e00613.
- [12] Slone S, Kumar A, Jacobs J, et al. Accuracy of Achalasia Quality of Life and Eckardt scores for assessment of clinical improvement post treatment for achalasia. Dis Esophagus 2021;34:doaa080.
- [13] Hou C, Huang Z, Zhang H. Attention should be paid to the psychological status of patients with achalasia. Clin Transl Gastroenterol 2023;14:e00655.
- [14] Guadagnoli L, Geeraerts A, Geysen H, et al. Psychological processes, not physiological parameters, are most important contributors to symptom severity in patients with refractory heartburn/regurgitation symptoms. Gastroenterology 2023;165:848-60.
- [15] Zhang L, Zhao W, Wang B. Influence of anxiety and depression on the symptoms of achalasia patients: a retrospective cohort study in China during COVID-19. Dig Dis 2023;41:362-8.
- [16] Gagliardi M, Iovino P, Gargano D, et al. Can esophageal symptoms be associated with sleep disorders in esophageal rare diseases? A prospective case-control study across

- achalasia, eosinophilic esophagitis and gastroesophageal reflux disease. Minerva Gastroenterol (Torino) 2023;69:365-73.
- [17] Doruk C, Mocchetti V, Rives H, et al. Correlations between anxiety and/or depression diagnoses and dysphagia severity. Laryngoscope 2024;134:2115-20.
- [18] Carlson DA, Gyawali CP, Roman S, et al. Esophageal hypervigilance and visceral anxiety are contributors to symptom severity among patients evaluated with high-resolution esophageal manometry. Am J Gastroenterol 2020;115:367-75.
- [19] Ekberg O, Hamdy S, Woisard V, et al. Social and psychological burden of dysphagia: its impact on diagnosis and treatment. Dysphagia 2002;17:139-46.
- [20] Bernard P, Romain AJ, Caudroit J, et al. Cognitive behavior therapy combined with exercise for adults with chronic diseases: Systematic review and meta-analysis. Health Psychol 2018;37:433-50.
- [21] Graham CD, Gouick J, Krahé C, Gillanders D. A systematic review of the use of Acceptance and Commitment Therapy (ACT) in chronic disease and long-term conditions. Clin Psychol Rev 2016:46:46-58.
- [22] Speyer R, Cordier R, Sutt AL, et al. Behavioural interventions in people with oropharyngeal dysphagia: a systematic review and meta-analysis of randomised clinical trials. J Clin Med 2022;11:685.