

Navigating Dysphagia Aortica in a 90-Year-Old Patient: A Case Report

Mohamed Omar Hassan¹, Ahmed Shafie Aden¹, Osman Farah Dahir¹, Ahmed Elmi Abdi¹,
Ishak Ahmed Abdi¹, Said Abdirahman Ahmed¹, Nasra Mohamud Hilowle², Mohamed Osman Omar Jeele³

¹Cardiology Department, Mogadishu Somali Türkiye Training and Research Hospital, Mogadishu, Somalia; ²Anesthesia and Reanimation Department, Mogadishu Somali Türkiye Training and Research Hospital, Mogadishu, Somalia; ³Internal Medicine Department, Mogadishu Somali Türkiye Training and Research Hospital, Mogadishu, Somalia

Correspondence: Mohamed Omar Hassan, Email drmohamedyalax@gmail.com

Background: Dysphagia aortica is an uncommon condition caused by esophageal compression from vascular malformations, often complicating the clinical course in the elderly. This case explores the management of dysphagia aortica in a 90-year-old Somali woman, emphasizing challenges posed by age-related anatomical changes and comorbidities.

Case Presentation: The patient presented with chest discomfort, dyspnea, and dysphagia for liquids and solids. Imaging revealed esophageal compression due to ascending aorta dilation. The dysphagia persisted despite pharmacological management, leading to the decision that surgical intervention was too risky. We placed a percutaneous endoscopic gastrostomy (PEG) tube to maintain nutrition, stabilizing her condition and improving her quality of life.

Conclusion: This case underscores the importance of individualized, multidisciplinary management in elderly patients with dysphagia aortica. While PEG is a well-established intervention for severe dysphagia, its application in dysphagia aortica, particularly in frail geriatric patients, highlights a crucial, underrecognized approach. This report adds to the limited literature on dysphagia aortica by demonstrating that non-surgical interventions can be effective in maintaining nutrition and quality of life when surgical risks outweigh potential benefits.

Keywords: dysphagia aortica, esophageal compression, ascending aorta dilation, percutaneous endoscopic gastrostomy

Introduction

Dysphagia aortica is a condition that results in esophageal compression due to anatomical abnormalities, primarily vascular malformations such as the aortic aneurysm. Dysphagia aortica is difficult to treat, especially in older people. Age-related physiological changes, comorbidities, and cultural variables that affect health-seeking and treatment adherence might complicate dysphagia aortica. Older individuals, particularly women, are at an increased risk for dysphagia aortica, as research shows this ailment mostly impacts older females, often those with reduced height, hypertension, and kyphosis.¹ Anatomical changes related to aging, including diminished esophageal flexibility and modified motility, might intensify dysphagia symptoms.²

The etiology of aortic dysphagia is multifaceted. Thoracic aortic aneurysms often cause dysphagia by exerting pressure on the esophagus.³ Additionally, the presence of comorbidities such as gastric reflux disease and neurological disorders may exacerbate the clinical scenario, leading to an increased risk of aspiration pneumonia, a significant concern in this population.^{4,5} The clinical evaluation of dysphagia in geriatric individuals necessitates a holistic approach that takes into account both physiological and psychological elements.

Management options often involve surgical techniques, such as endovascular repair or aortic resection, which can mitigate symptoms by alleviating compression.⁶ Conservative treatment may be suitable in instances where dysphagia is minimal and the patient exhibits no symptoms or when the surgical risk is deemed too high.⁷

Standardized examinations, like videofluoroscopic swallowing studies, provide critical insights into swallowing mechanics and assist in pinpointing particular deficiencies.⁸ Dysphagia aortica treatment depends on the etiology and severity. If an aortic aneurysm causes dysphagia, surgery may be needed. The aneurysm can be repaired endovascularly or surgically to reduce esophageal compression.⁹ In less severe cases, conservative approaches such as dietary alterations, swallowing therapy, and the use of esophageal dilators may be utilized to mitigate symptoms.¹⁰

Case Report

A 90-year-old woman reported to our clinic with complaints of chest discomfort, chest heaviness, dyspnea, and dysphagia for both liquids and solids that started gradually with solid foods first but progressed over time. She described no previous history of chronic illness. The examination indicated a blood pressure of 160/110 mmHg. Auscultation detected a moderate-intensity diastolic murmur in the aortic region, necessitating further evaluation. In light of her symptoms and clinical results, we conducted imaging to investigate potential explanations. A chest x-ray was conducted, revealing a wider mediastinum and an enlarged aorta. The patient's recent history indicated no substantial weight reduction. In light of these results, we subsequently performed a CT scan to better assess the thoracic structures.

The CT scan revealed esophageal compression resulting from ascending aorta enlargement (Figures 1 and 2). This discovery aligned with dysphagia aortica, an uncommon disorder in which the esophagus is squeezed by an aberrant aorta. We commenced Nebivolol 5mg in conjunction with Candesartan 8mg and hydrochlorothiazide 12.5mg combination, to control her condition. These drugs substantially reduced her blood pressure, resulting in considerable alleviation of her chest pains and dyspnea. Nonetheless, despite initial progress, her dysphagia continued, prompting consideration of surgical referral. Given her elderly age and the intricacy of the necessary surgery, we chose conservative care over surgical intervention. A percutaneous endoscopic gastrostomy (PEG) tube was implanted as part of her supportive treatment after she had agreed to this approach.

This enabled us to circumvent the esophageal constriction and guarantee she obtained sufficient nutrients, considering her persistent swallowing challenges. The PEG tube facilitated safe eating, minimizing the danger of aspiration, so stabilizing her health and improving her quality of life. The patient's symptoms are presently well managed by conservative treatment. Her blood pressure is steady, and she reports alleviation of the chest pain that first prompted her visit to the clinic. With the PEG tube installed, she can fulfill her dietary requirements and sustain a stable state with frequent monitoring. Her thoracic pain and respiratory issues diminished, enabling her to return to mild everyday activities.

A multidisciplinary team comprising cardiology, gastrointestinal, and nutritional support services developed a personalized treatment plan. We delivered instruction on PEG tube upkeep and sanitation to avert difficulties. The patient's health stayed stable without invasive surgery, and she showed improvement without high-risk surgical intervention. This instance underscores the significance of personalized patient care in the management of uncommon illnesses among the older demographic.

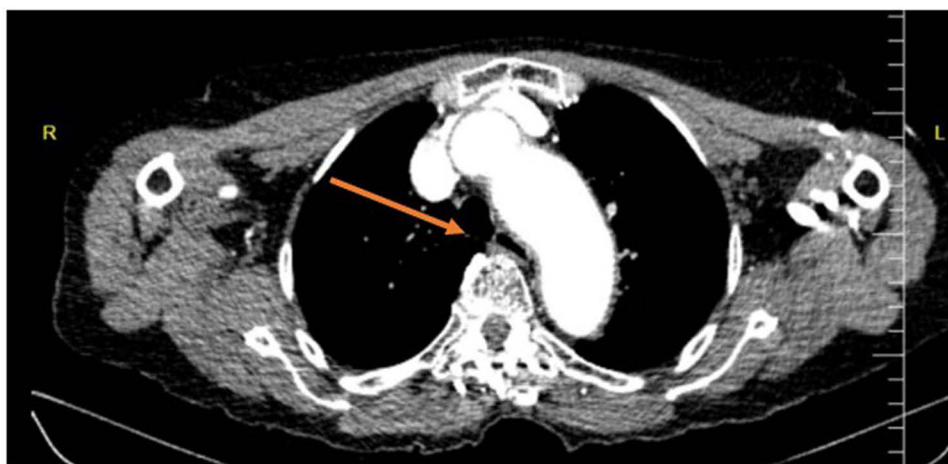


Figure 1 A CT image at the upper thoracic level showing the enlarged arch of the aorta compressing the esophagus. The Orange arrow indicates the compressed esophagus.

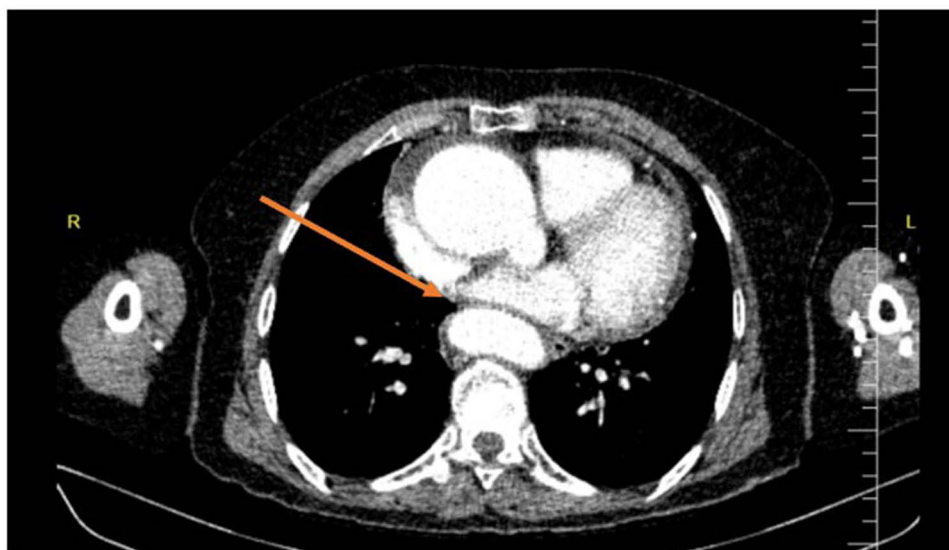


Figure 2 A CT image at the mid-thoracic level showing the esophagus completely compressed by the descending aorta. The Orange arrow indicates the site of complete esophageal compression.

Discussion

The case report provides a detailed summary of dysphagia aortica in an aged patient, highlighting the difficulty of addressing such illnesses in the senior population. This case study underscores the importance of a tailored, multi-disciplinary strategy for patient care, particularly in the management of uncommon conditions like dysphagia aortica, which is frequently worse by age-related anatomical and physiological alterations.

The choice to use a conservative management plan in this instance demonstrates a sophisticated comprehension of the hazards linked to surgical procedures in elderly individuals. Considering the patient's advanced age of 90 years and the associated surgical risks, selecting non-invasive therapy seems judicious and consistent with contemporary best practices in geriatric care.¹¹

Different from other cases in the literature that may have opted for surgical solutions, this case highlights the effectiveness of conservative management through pharmacotherapy and the implementation of a percutaneous endoscopic gastrostomy (PEG) tube, which facilitated safe nutrition and minimized aspiration risks.¹² Antihypertensive medicine substantially alleviated acute symptoms of chest discomfort and dyspnea, underscoring the essential significance of pharmacotherapy in stabilizing these patients.¹³

The effective use of a percutaneous endoscopic gastrostomy (PEG) tube to alleviate esophageal compression and secure sufficient nutrition underscores the need of including nutritional requirements into the management strategy. This technique not only stabilized the patient's nutritional condition but also reduced the chance of aspiration, a prevalent and severe consequence in individuals with dysphagia.¹⁴ Particularly in elderly individuals with other comorbidities, multidisciplinary treatment of dysphagia aortica is absolutely vital. In this instance, a team of cardiology, gastrointestinal, and nutritional support experts worked together to create a customized treatment plan meeting the particular needs of the patient.¹⁵

Moreover, the example underscores the significance of consistent monitoring and follow-up in older patients with aortic dysphagia. As the patient's symptoms ameliorated with conservative therapy, her capacity to participate in everyday activities was reinstated, illustrating the efficacy of a well-coordinated care plan.¹⁶ Continuous evaluation of her condition is crucial to swiftly treat any alterations in her health state, especially considering the risk of consequences related to her underlying aortic issue.¹⁰

These case reports are significant additions to medical literature, revealing insights that may inform future management techniques for dysphagia aortica and analogous disorders in the elderly population.

Conclusion

This case highlights the complexity of dysphagia aortica in elderly patients and the need for a multidisciplinary, patient-centered approach. Given the high surgical risk in frail geriatric patients, conservative management, including pharmacotherapy and PEG tube placement, can be an effective alternative to maintain nutrition and quality of life. This report contributes to the limited literature on dysphagia aortica, emphasizing the importance of individualized care strategies. Continuous monitoring and supportive management remain crucial for optimizing outcomes in such cases, reinforcing the role of non-invasive interventions when surgical risks outweigh potential benefits.

Ethical Approval

According to our hospital rule, ethical approval is only required in articles but not case reports.

Consent

We obtained consent from the patient herself for the publication of this case report, we clarified that images and descriptions of her condition will be used without disclosing her identity. Ethical approval was not required for this case report, according to our institution's policies.

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Disclosure

The authors declare that there is no competing interest related to the study, authors, other individuals, or organizations.

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