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SERIAL ENDOSCOPIC BALLOON DILATATION FOR ESOPHAGEAL ACHALASIA: A CASE REPORT

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Abstract

Background: *Achalasia is an esophageal motility disorder characterized by abnormal peristalsis and insufficient relaxation of the lower esophageal sphincter.* ***Case Presentation:*** *A 51-year-old male presented to the emergency room with dysphagia, nausea, vomiting, and a 30-kg weight loss over 1.5 years. Upper gastrointestinal endoscopy revealed Type II achalasia, while endoscopic biopsy identified a Type III hiatal hernia, with pathological examination demonstrating squamous hyperplasia. An esophagram showed achalasia involving the distal esophagus. A CT scan revealed esophageal dilatation at the level of the seventh thoracic vertebra (T7), measuring 4.6 × 2.5 cm.* ***Intervention:*** *The patient received nutritional support with a liquid diet and underwent upper gastrointestinal endoscopy followed by serial endoscopic balloon dilatation performed in three sessions. Balloon dilatation was carried out using a graded approach with progressive balloon diameters to reduce lower esophageal sphincter pressure while minimizing the risk of esophageal perforation. The patient was monitored clinically after each procedure, and no immediate procedure-related complications were observed.* ***Out come:*** *Following the final balloon dilatation session, the patient's symptoms improved markedly. Dysphagia, nausea, and vomiting were significantly reduced, allowing progression from a liquid diet to a regular diet. The patient experienced weight gain and was able to resume normal daily activities.* ***Conclusion:*** *Following the third balloon dilatation session, the patient's symptoms improved markedly. Dysphagia, nausea, and vomiting, allowing progression from a liquid diet to a regular diet. The patient experienced weight gain and successfully resumed normal daily activities.*

Keyword: *Serial Endoscopic Balloon Dilatation; Management; Esophageal Achalasia*

INTRODUCTION

Esophageal achalasia is a rare primary esophageal motility disorder characterized by impaired relaxation of the lower esophageal sphincter (LES) and the absence of normal esophageal peristalsis. The condition results from progressive degeneration of inhibitory neurons within the myenteric plexus, leading to functional obstruction at the esophagogastric junction and subsequent esophageal dilatation. Clinically, patients commonly present with dysphagia to both solids and liquids, regurgitation, chest discomfort, and progressive weight loss.

The annual incidence of achalasia has been reported to range from approximately 0.3 to 1.63 cases per 100,000 population, with an increasing incidence observed in recent decades. Although achalasia can occur at any age, it most commonly affects adults between the ages of 30 and 60 years. Diagnosis is based on a combination of clinical presentation, upper gastrointestinal endoscopy, barium esophagography, and high-resolution esophageal manometry, with manometry considered the gold standard for confirming the diagnosis and determining its subtype.

The primary goal of achalasia treatment is to reduce the functional obstruction at the esophagogastric junction and improve esophageal emptying. Current definitive treatment options include pneumatic balloon dilatation (PBD), laparoscopic Heller myotomy (LHM), and peroral endoscopic myotomy (POEM). The choice of treatment depends on the achalasia subtype, patient characteristics, local expertise, and clinical condition. Pneumatic dilatation is an effective minimally invasive treatment, particularly for patients with type I and type II achalasia, and may be performed using a graded or serial dilatation approach.

Despite the availability of effective therapeutic modalities, management can be challenging in patients presenting with severe dysphagia, significant weight loss, and poor nutritional status. In such patients, restoration of adequate nutrition and careful optimization of the patient's general condition are important components of treatment. This case report describes the clinical presentation and management of a patient with esophageal achalasia and severe nutritional compromise who was treated with serial endoscopic balloon dilatation.

CASE REPORT

A 51-year-old man presented to the Emergency Department of dr. Ramelan Naval Central Hospital, Indonesian Navy with a chief complaint of painful swallowing, accompanied by nausea and vomiting. The patient had experienced gastrointestinal symptoms, particularly difficulty eating and drinking, for approximately one year. He reported frequent vomiting after eating or drinking, resulting in significantly reduced nutritional intake. Over the preceding 1.5 years, the patient had experienced a 30-kg weight loss, from 86 kg to 56 kg. On admission, the patient appeared weak.

An esophagram was initially performed with a plain radiograph, which showed no evidence of a mass in the cervical region or abnormalities of the bony structures. Subsequently, contrast medium was administered orally and swallowed by the patient. The contrast filled the esophagus and demonstrated delayed passage through the distal esophagus before gradually entering the stomach. The esophageal caliber was relatively normal, with a normal-appearing mucosal surface. A smooth narrowing measuring approximately 1.22 cm in length was observed in the distal esophagus, producing a characteristic mouse-tail appearance. No contrast retention was observed in the valleculae or in the right and left piriform sinuses. Based on these findings, the examination was consistent with distal esophageal achalasia.

Contrast-enhanced computed tomography (CT) of the esophagus demonstrated esophageal dilatation, with the largest diameter at the level of the seventh thoracic vertebra (T7), measuring approximately 4.6 × 2.5 cm. In addition, intraluminal filling defects were observed at the levels of the eighth and tenth thoracic vertebrae (T8 and T10), which were suspected to represent polyps. Thickening of the esophagogastric junction (EGJ) was also observed, which could be attributed to either a stricture or a malignant process. Thickening of the gastric fundus extending partially into the gastric corpus was also observed, with differential diagnoses including inflammatory and malignant processes.

Based on the clinical and radiological findings, the patient was subsequently discussed by the digestive team. The initial plan was to perform endoscopy with balloon dilatation and biopsy, as well as nasogastric tube (NGT) placement to support the patient's nutritional requirements while awaiting the histopathological results, which were expected to take approximately two weeks. A second surgical option was also prepared, consisting

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of laparotomy with Heller myotomy and fundoplication accompanied by percutaneous endoscopic gastrostomy (PEG) placement, or distal esophagogastrectomy (DEPG), depending on the histopathological findings and the patient's clinical condition.

Considering the patient's overall condition, poor nutritional status, and clinical and radiological findings, serial endoscopic balloon dilatation was selected as the primary therapeutic approach. Following endoscopic balloon dilatation, the patient's general condition remained stable. The patient received intravenous fluid therapy consisting of B-fluid at 1,500 mL per 24 hours and 0.9% sodium chloride (NaCl) at 500 mL per 24 hours. The patient was subsequently admitted to the High Care Unit (HCU) for two days after the procedure for clinical monitoring.

After a total hospital stay of 13 days, by the sixth day following endoscopic balloon dilatation, the patient's clinical condition had improved. The patient no longer complained of nausea or odynophagia. He was able to mobilize independently, void spontaneously, and manage his nutritional intake independently. Given his stable clinical condition, the patient was discharged from the hospital.

DISCUSSION

Achalasia is an esophageal motility disorder characterized by abnormal peristalsis and insufficient relaxation of the lower esophageal sphincter. Patients most commonly present with dysphagia to both solids and liquids, regurgitation, and occasional chest pain, with or without weight loss. Achalasia occurs equally in males and females. It has traditionally been considered a rare disease, with a globally reported incidence ranging from 0.3 to 1.63 cases per 100,000 persons per year. This report highlights balloon dilatation as a treatment option for esophageal achalasia. In the present case, the patient presented with dysphagia, nausea, vomiting, and substantial weight loss of 30 kg over 1.5 years. These findings are consistent with the typical clinical manifestations of advanced achalasia.

The diagnosis in this patient was supported by the esophagram, which demonstrated distal esophageal narrowing with a smooth tapering appearance, described as a mouse-tail appearance. Delayed passage of contrast into the stomach and proximal esophageal dilatation are characteristic radiological findings of achalasia. Contrast-enhanced CT further demonstrated esophageal dilatation measuring 4.6 × 2.5 cm at the T7 level.

The patient's severe weight loss was an important consideration in determining the treatment strategy. His body weight decreased from 86 kg to 56 kg, representing a loss of approximately 35% of his initial body weight. Frequent vomiting and impaired passage of food into the stomach had resulted in inadequate nutritional intake and poor general condition. In patients with severe nutritional compromise, definitive surgical treatment may carry increased perioperative risks. Therefore, nutritional optimization and restoration of esophageal emptying are important before considering more invasive surgical procedures.

In this case, serial endoscopic balloon dilatation was selected as the primary treatment. It is an established definitive treatment for achalasia and is particularly effective in patients with type I and type II disease. The patient's clinical response following balloon dilatation was favorable. By the sixth day after the procedure, nausea and odynophagia had resolved, and the patient was able to mobilize independently and manage his nutritional intake independently.

Nutritional management was also an important component of this patient's treatment. Because of his prolonged inadequate oral intake and severe weight loss, nutritional support was provided during hospitalization. The patient's clinical condition was monitored in the High Care Unit for two days following the procedure. Gradual nutritional advancement was performed according to tolerance.

CONCLUSION

Following the third balloon dilatation session, the patient's symptoms improved markedly. Dysphagia, nausea, and vomiting, allowing progression from a liquid diet to a regular diet. The patient experienced weight gain and successfully resumed normal daily activities.

REFERENCE

Khashab MA, Vela MF, Thosani N, Agrawal D, Buxbaum JL, Abbas Fehmi SM, et al. ASGE guideline on the management of achalasia. Gastrointest Endosc. 2020;91(2):213-227. doi:10.1016/j.gie.2019.04.231.

Vaezi MF, Pandolfino JE, Yadlapati RH, Greer KB, Kavitt RT. ACG Clinical Guidelines: Diagnosis and Management of Achalasia. Am J Gastroenterol. 2020;115(9):1393-1411.

Oude Nijhuis RAB, Zaninotto G, Roman S, Fockens P, Boeckxstaens GE, et al. European Guideline on Achalasia—United European Gastroenterology and European Society of Neurogastroenterology and Motility recommendations. United European Gastroenterol J. 2020;8(1):13-33.

Esposito D, Maione F, D'Alessandro A, Sarnelli G, De Palma GD. Endoscopic treatment for esophageal achalasia. World J Gastrointest Endosc. 2016;8(2):30–39. doi:10.4253/wjge.v8.i2.30.

Pesce M, Pagliaro M, Sarnelli G, Sweis R. Akalasia Modern: Diagnosis, Klasifikasi, dan Pengobatan. J Neurogastroenterol Motil. 2023;29(4):419–427. Available from: https://doi.org/10.5056/jnm23125

Fazlollahi N, Anushiravani A, Rahmati M, et al. Safety and Efficacy of Graded Gradual Pneumatic Balloon Dilation in Idiopathic Achalasia Patients: A 24-Year Single-Center Experience. Arch Iran Med. 2021;24(12):862-868. doi:10.34172/aim.2021.129.

Van Hoeij FB, Prins LI, Ponds FA, et al. Efficacy and safety of pneumatic dilation in achalasia: A systematic review and meta-analysis. Neurogastroenterol Motil. 2019;31(12):e13548. doi:10.1111/nmo.13548.

Vaezi MF, Pandolfino JE, Yadlapati RH, Greer KB, Kavitt RT. ACG Clinical Guidelines: Diagnosis and Management of Achalasia. Am J Gastroenterol. 2020;115(9):1393-1411.

Oude Nijhuis RAB, Zaninotto G, Roman S, et al. European guidelines on achalasia: United European Gastroenterology and European Society of Neurogastroenterology and Motility recommendations. United Eur Gastroenterol J. 2020;8(1):13-33. doi:10.1177/2050640620903213.

Kahrilas PJ, Bredenoord AJ, Fox M, et al. The Chicago Classification of esophageal motility disorders, v3.0. Neurogastroenterol Motil. 2015;27(2):160-174. doi:10.1111/nmo.12477.

Pandolfino JE, Kwiatek MA, Nealis T, Bulsiewicz W, Post J, Kahrilas PJ. Achalasia: a new clinically relevant classification by high-resolution manometry. Gastroenterology. 2008;135(5):1526-1533. doi:10.1053/j.gastro.2008.07.022.

Boeckxstaens GE, Annese V, des Varannes SB, et al. Pneumatic dilation versus laparoscopic Heller's myotomy for idiopathic achalasia. N Engl J Med. 2011;364(19):1807-1816. doi:10.1056/NEJMoa1010502.

Kumbhari V, Tieu AH, Onimaru M, et al. Peroral endoscopic myotomy versus pneumatic dilation in treatment-naive patients with achalasia: 5-year follow-up of a randomised controlled trial. Lancet Gastroenterol Hepatol. 2022;7(12):1103-1111. doi:10.1016/S2468-1253(22)00300-4.

DOI: https://doi.org/10.47353/bj.v7i1.715

Kadakia SC, Wong RKH. Pneumatic balloon dilation for esophageal achalasia. Gastrointest Endosc Clin N Am. 2001;11(2):325-345. doi:10.1016/S1052-5157(18)30074-6.

Csendes A, Braghetto I, Burdiles P, et al. Late results of a prospective randomized study comparing forceful dilatation and esophagomyotomy in patients with achalasia. Surgery. 2006;140(6):922-930.