

A Case Report of Achalasia Cardia

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ABSTRACT

Achalasia cardia is an esophageal motility disorder with the absence of esophageal peristalsis and impairs the lower esophageal sphincter relaxation, characterized by autoimmune neurodegeneration of ganglionic cells myenteric nerve plexus in the esophagus. The cause was unknown but viral or autoimmune response causes achalasia. The main symptom includes Dysphagia. Esophageal manometry is the main test for Achalasia. The medical management with endoscopic surgery, Esophageal dilation, Calcium channel blockers, and myotomy surgery. Achalasia is a case of 54 years old female patient who have Dysphagia for the past years and was diagnosed as Achalasia after 10 years. The patient experiences recurrent Dysphagia and swallowing difficulty for liquids and solids. Now she was coming with the same complaints. She was treated with pneumatic dilation for past and current. The lab investigation and other reports show her disease complications. Here we report a case of Achalasia cardia with complications.

KEYWORDS: Achalasia cardia, Dysphagia, Pneumatic dilatation

I. INTRODUCTION

Achalasia cardia is a rare motility disorder that occurs due to the autoimmune neurodegeneration of ganglionic cells myenteric nerve plexus in the esophagus, Sir Thomas Willis first described it in 1674^[1,2]. It was classified into three types, they are stage 1 (onset period), stage 2 (silent period) with compression and pressurization, and stage 3 (progressive deterioration)^[3]. The investigation shows that achalasia is mainly caused by the degeneration of Nitric Oxide and Vasoactive

intestinal peptide-releasing inhibitory neurons control muscle relaxation^[4].

The lower oesophageal sphincter is controlled by the enteric nervous system (ENS) that surrounds the gut and the neurons in the Enteric Nervous System control the motility and peristalsis^[5]. It is characterized by a disease characterized by the loss of plexus ganglion cell functions in the esophagus and lower esophageal sphincter^[6]. underlying viral infections, idiopathic autoimmune conditions, genetic disorders, herpes zoster virus, herpes simplex virus, measles, and human papillomavirus can impair and other predisposing factors are contributing to achalasia cardia^[6].

Dysphagia is the most common cause reported from achalasia cardia, other symptoms include dilatation of the esophagus, swallowing difficulty, and common respiratory symptoms of coughing, wheezing, hoarseness, and bronchitis^[6]. The diagnosis confirmed from physical examination Dysphagia for solids and liquids with regurgitation, esophageal manometry, and Endoscopy^[7]. Two classes of drugs calcium channel blockers and long-acting nitrates are commonly used. Other treatment guidelines include phosphodiesterase-5-inhibitor, sildenafil, anticholinergics like atropine, dicyclomine, β -adrenergic agonists terbutaline, and theophylline are less widely used medications^[8]. Here we report a 56 years old female patient with GIT complication from an unknown cause of Achalasia cardia.

CASE PRESENTATION

A 54-year-old lady came with complaints of recurrence of dysphagia and difficulty to

swallowing foods for 1 week. The patient is a known case of achalasia cardia and had undergone pneumatic dilation on August 2011. The lady had past history of dyslipidaemia and hypothyroidism on treatment T. Levothyroxine, 75mcg, and T. Metformin 500mg. The history of Dysphagia was originally started in 1987 and the disease was actually diagnosed 12 years back presenting with complaints of difficulty in swallowing liquid and solid foods, nocturnal regurgitation and no weight loss with mild chest pain and cough. The patient was conscious and oriented with stable vitals of respiratory rate and normal ECG with normal cardiac and respiratory functions.

The actual diagnosis was done at her 44th age and recurrent Dysphagia occurs within months and years. Then pneumatic dilatations were done. USG abdomen shows a retroverted bulky uterus with a small subserous fibroid of size 2.0*1.6cm the anterior wall of the body region, Liver, Gall bladder, Pancreas, Spleen, Kidney Urinary bladder was normal. CT-Thorax – plain shows the esophagus appears grossly dilated throughout and fluid filled, air-fluid level seen in the upper part of esophagus wall about 5mms these feature suggestive of Achalasia cardia.

Video endoscopy shows reflux esophagitis. Other tests show negative results such as HBsAg, HIV test, and HCV. Complete blood count, Blood sugar, and Renal Function Test were normal. The patient was dyslipidaemia with elevated Triglyceride (119mg/dl) and LDL (136mg/dl). All these test results and physical examinations are suggestive of Achalasia cardia. Pneumatic dilatation was done (3cm), 10 Psi for 10 sec, and no immediate or subsequent complications were noted. She was discharged with Razo easy 1 sachet for 10 days.

Now the patient was admitted with clinical presentation of Dysphagia to the reason of pseudo achalasia. Biopsy was taken as an endoscopy Biopsy from the esophagus to the reason of Malignancy. Microscopy shows gastroesophageal mucosa focal denudation of lining epithelium, Lamina propria is markedly edematous with dense inflammatory infiltration composed of predominantly lymphoplasmacytic with few neutrophils, and eosinophils, mild active inflammation is present, no organism, granuloma, dysphagia, and malignancy were seen, Gastroesophageal mucosa shows mild active inflammation. Her lab investigation shows declined Hb level (10.8g/dl), elevated ESR (40mm/hr), normal urea and creatinine, HBsAg, and

HCV were normal and the Antigen test was negative.

Upper GI Endoscopy was taken on the second day shows multiple mucosal erosions with circumferential confluence grossly dilated and touched esophagus minimal pneumatic dilatation was done, and small ulcers are seen on OG junction, diffuse erythema with nodular seen in fundus, body part and Antrum area of the stomach. Endoscopy result shows Achalasia cardia, Esophagitis grade D, Gastro Esophageal junction Ulcer, and Pancreatitis with Nodularity displayed in figure (1a, 1b, 1c, 1d, 1e). After admission under Gastroenterology, the patient had mild bleeding from RT, it was seen on the next day Endoscopy.

CECT chest was taken on the second day due to recurrent Dysphagia the following results are shown by this test

- Gross dilatation of thoracic esophagus with thickened enhancing walls.
- Asymmetric circumferential enhancing thickening involving the GE junction with intra-luminal narrowing.
- Inflammatory /Neoplastic etiology involving the GE junction is to be ruled out
- Reticular and ground glass densities in apical and posterior segments of the right upper lobe superior and posterior basal segments of the right lower lobe. Posterior subpleural atelectasis in superior, posterior, and lateral basal segments of right lower lobe and superior of left lower lobe
- Bilateral mosaic pattern of attenuation shows whether a small airway disease
- Ill-defined heterogenous area with mean HU12 in the posterior subcutaneous plane (L1 – L2 to L4 – S1) level were infective.

INJ. Fentanyl as an anesthetic and IV fluids DNS and RL were given as Stat medicines. The following medicines are used to treat the conditions including INJ.MONOCEF (Ceftriaxone, 1 gm), INJ.PANTOCID (Pantoprazole, 40mg) and the patient's own medicines were continued. The patient was better after the procedure. She was advised to liquid foods and to lie down at 45 degrees.

She was discharged with TAB.CEFIXIME (Cefixime, 200mg, 1-0-1), TAB.THYROXINE (Levothyroxine, 75mg, 1-0-0), TAB>PANTOP (Pantoprazole, 40mg, 1-0-1), TAB.ITOPRIDE (Itopride, 50mg, 1-1-1) for 7 days. She was symptomatically better stable vitals and was discharged.



Figure 1-a – it shows Achalasia cardia

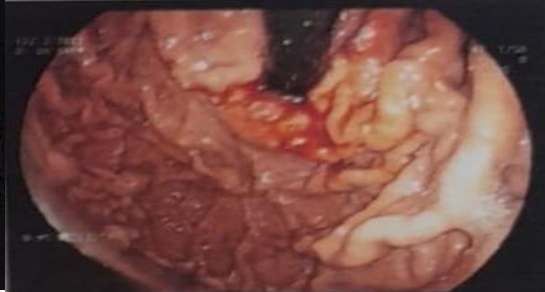


Figure 1-b – Eosinophilic esophagitis grade D



Figure 1-c shows Gastroesophageal junction ulcers

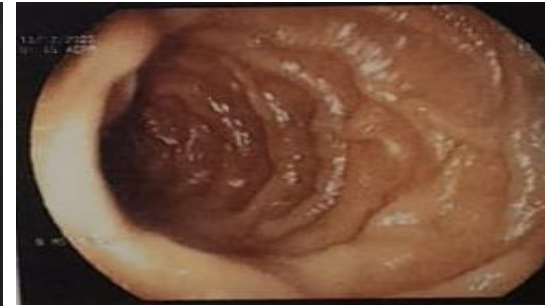


Figure 1-d Gastroesophageal junction ulcers are noted

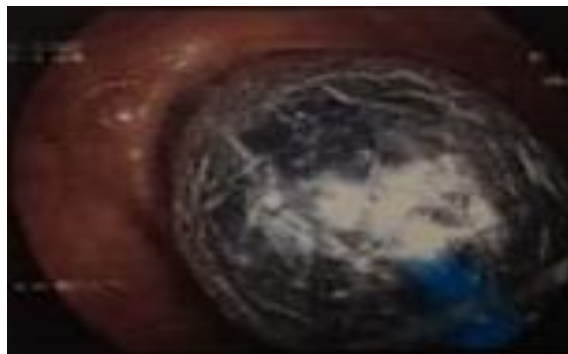


Figure 1-e – pancreatitis with nodularity

II. DISCUSSION

Achalasia cardia is the common cause of motor Dysphagia, it was first introduced 300 years ago, In the initial stage, degeneration of nerves in the esophagus results inhibit the action of excitatory neurotransmitters such as acetylcholine, and causes nonperistaltic contraction called vigorous achalasia, progressive loss of cholinergic neurons causes dilation and low amplitude simultaneous contractions in the esophagus called classic achalasia^[9].

The patient had complaints of dysphagia over many years, Later the expert physicians identified Achalasia cardia at her 44th age. Now the patient was admitted to the gastroenterology department due to the same condition of Dysphagia. Achalasia cardia patients have one-third experience of recurrence^[10]. Here the lady had the same condition in four-year intervals. Study shows the recurrent rate was increased.

The cause was unknown. It causes abnormal peristalsis of the esophagus and failure of relaxation of the lower esophageal sphincter^[11]. The main symptoms of achalasia cardia are persistent Dysphagia is a sign of Achalasia, others include Regurgitation, Chest pain, and Weight loss, mainly three hypotheses are there related to the etiology of achalasia cardia are genetic theory, infectious and autoimmune^[12]. The regurgitation mostly occurs at night, it can be avoided by elevating the head or even sitting upright to sleep, Here the patient experiences regurgitation more at night, so the Physician advised elevating the head at 45°.

The manometry technique is used to identify motor disabilities. Other diagnostic technique includes high-resolution manometry (HRM), and esophageal pressure topography (EPT). Endoscopy may also be used to determine the dilatation of the esophagus wall, barium esophagogram is used to identify the extent of stomach emptying, if suspicious of pseudo achalasia is high, endoscopy, ultrasound, and computed tomography may be helpful, through X-ray, the trapped bolus is identified^[14]. USG abdomen and Computerised tomography are taken suggestive of Achalasia cardia.

It is rare in children than in adult and geriatric patients. For adults, oral endoscopic myotomy (POEM) is a technique used for management^[13]. By using a grade dilator technique, air pressure is used to break the lower esophageal

sphincter's circular fibre instead of dilating of the esophagus. Current treatment options are reducing the hypertonicity of LES by pharmacologic, other procedures (endoscopy, surgery), Calcium channel blockers, and long-acting nitrates are the most commonly used treatments, other include Anticholinergic, Beta agonists, Phosphodiesterase-5 inhibitors^[7]. The procedure of pneumatic dilatation was done in this patient, it same was done for recurrent conditions.

The complications along with this condition were carcinoma, aspirational pneumonia, esophagitis, esophageal ulcers, and bleeding and perforation^[14]. This patient has complication of esophagitis grade D, pangastritis with nodularity, and gastroesophageal junction Ulcer. The infection is treated by using the Antibiotic- Ceftriaxone, gastric ulcer, and irritation were treated with Pantoprazole, and Anticholinergic Itopride was used. Discharged with stable vitals.

III. CONCLUSION

Achalasia cardia the neurodegenerative disorder occurs due to the failure of lower esophageal sphincter relaxation, controlled by the myenteric plexus. The medical history was started years back and it continues. The recurrent rate was increased nowadays. The only non-surgical method was pneumatic dilatation. The etiology is unknown but it occurs due to an imbalance of neurotransmitters and genes. The most common cause was Dysphagia and regurgitation, early detection by endoscopy will help to avoid the prognosis of the disease. Esophageal surgery is the last option. By frequent monitoring, the recurrent rate and progression of the disease can be identified early. Through early treatment, the chances and rate of complications can be reduced. mainly it affects the adult age between 25 and 60 years. The treatment with medications shows only limited effects with a high incidence of side effects. Commonly medications are given to a patient who is not a candidate for pneumatic dilation and surgery. Pneumatic dilation has some side effects

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INFORMED CONSENT

Before taking this case the patient and their families were informed and informed consent was acquired.

CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

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