# ADVANCING GIPATIENT GIPATIENT CARE 2022 Powered by: GIAlliance

### APRIL 23–24, 2022 SOUTHLAKE, TEXAS

G Alliance

This activity is supported by an educational grant from Ferring Pharmaceuticals Inc., Janssen Biotech, Inc., administered by Janssen Scientific Affairs, LLC, Madrigal Pharmaceuticals, Merck & Co., Inc., Phathom Pharmaceuticals Inc. and Takeda Pharmaceuticals U.S.A., Inc.



#### ACHALASIA **Evaluation and Management** Michael F. Vaezi, MD, PhD, MSc (Epi) Professor of Medicine and Otolaryngology **Clinical Director and Associate Chief** Division of Gastroenterology, Hepatology and Nutrition Director, Esophageal Motility Center Director, Clinical Research Vanderbilt University Medical Center



- Consulting: Bayer, Diversatek, Ironwood, IsoThrive, Phathom, Sanofi
- Patent: Vanderbilt co-owns patent on MI-Diversatek



nature publishing group

#### CME

# ACG Clinical Guideline: Diagnosis and Management of Achalasia

Michael F. Vaezi, MD, PhD, MSc, FACG<sup>1</sup>, John E. Pandolfino, MD, MSCI<sup>2</sup> and Marcelo F. Vela, MD, MSCR<sup>3</sup>

Achalasia is a primary motor disorder of the esophagus characterized by insufficient lower esophageal sphincter relaxation and loss of esophageal peristalsis. This results in patients' complaints of dysphagia to solids and liquids, regurgitation, and occasional chest pain with or without weight loss. Endoscopic finding of retained saliva with puckered gastroesophageal junction or barium swallow showing dilated esophagus with birds beaking in a symptomatic patient should prompt appropriate diagnostic and therapeutic strategies. In this ACG guideline the authors present an evidence-based approach in patients with achalasia based on a comprehensive review of the pertinent evidence and examination of relevant published data.

Am J Gastroenterol 2013; 108:1238-1249 doi:10.1038/ajg.2013.196; published online 23 July 2013



Michael F. Vaezi, MD, PhD, MSc, FACG<sup>1</sup>, John E. Pandolfino, MD, MS, FACG<sup>2</sup>, Rena H. Yadlapati, MD, MHS (GRADE Methodologist)<sup>3</sup>, Katarina B. Greer, MD, MS<sup>4</sup> and Robert T. Kavitt, MD, MPH<sup>5</sup>

Achalasia is an esophageal motility disorder characterized by aberrant peristalsis and insufficient relaxation of the lower esophageal sphincter. Patients most commonly present with dysphagia to solids and liquids, regurgitation, and occasional chest pain with or without weight loss. High-resolution manometry has identified 3 subtypes of achalasia distinguished by pressurization and contraction patterns. Endoscopic findings of retained saliva with puckering of the gastroesophageal junction or esophagram findings of a dilated esophagus with bird beaking are important diagnostic clues. In this American College of Gastroenterology guideline, we used the Grading of Recommendations Assessment, Development and Evaluation process to provide clinical guidance on how best to diagnose and treat patients with achalasia.

Am J Gastroenterol 2020;115:1393–1411. https://doi.org/10.14309/ajg.0000000000000731; published online August 10, 2020





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# Manometry

### Conventional



# 5-8 sensors (3 to 5cm apart)





#### 36 Sensors Each sensor has 12 pressure sensitive segments



### Normal



#### Clinical Evolution of Achalasia Assessing clinically relevant phenotypes



In line

- Type I achalasia is associated with absent peristalsis and minimal esophageal body pressurization
- Type II achalasia is associated with pan-esophageal pressurization related to a compression effect
- Type III achalasia has evidence of abnormal contractility (spastic)

Pandolfino JE et al. Gastroenterology. 2008.















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### Presentation



### Dysphagia – (82-100%)

- Solids / liquids
- Regurgitation (56-97%)
  - Undigested food / saliva
  - Recumbent
- Weight loss (30-91%)
  - Chest pain (17-95%)
- Heartburn / cough (15-45%)

### **Most Common Presentation**

- A 25 year old male presents with:
  - HB and regurgitation for yrs
  - Sx's worse post prandially
  - No dysphagia/chest pain/wt loss
  - Previously diagnosed with GERD
  - Treated with twice daily PPI's with no help

# History, History, History....

- A 65 year old female presents with:
  - Dysphagia to solids and liquids for 2-yrs.
  - Associated regurgitation
  - h/o lapband surg. 5 yrs ago
  - wt loss of 140 pounds

# Case Study #3

112 PM

### Is It Achalasia?

- A 62 year old male presents with:
  - Dysphagia to solids and liquids for 3wks.
  - Associated regurgitation
  - Bariums swallow- ?achalasia
  - wt loss of 24 pounds in the past 2 months

### Achalasia Diagnosis

- History
- Manometry
- Barium esophagram

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- Endoscopy
- CXR/CT Chest



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### Treatment

- No cure
- Aperistalsis / LES dysfunction
  - None reversible
- <u>All</u> treatments lower LES pressure
  - Alleviating obstruction
  - Facilitating emptying

### Treatment Options in Achalasia

- Medications
- Botulinum toxin
- Pneumatic dilation
- Surgical myotomy
- POEM

#### Botulinum Toxin

Inhibitor of Ach release SNAP-25 protein





### **Cumulative Remission Rate**



150 Bar

Vaezi et al. Gut. 1999; 44:231-239.

# **Pneumatic Dilation**

- Most effective non-surgical tx
- Tearing LES
- Relief of obstruction
- Clinical improvement















### PD vs Myotomy Randomized Study



In first

NEJM. 2011; 364-1807-16.

### PD and Young Patients



In the second

Farhoomand and Vaezi. CGH. 2004; 2:389-94.

Follow-Up (months)

# Subtypes and Tx Outcome



Rohof et al. Gastroenterol. 2013; 144-718-25.



### Subtypes and Tx Outcome



1 see line

### Subtypes and Tx Outcome



Meng et al. Surg Endosc. 2017; 31-4665-72.

### ACG Clinical Guidelines: Diagnosis and Management of Achalasia

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- LHM, PD and POEM are effective modalities for patients with achalasia (ACG / ASGE)
- POEM or LHM for type III achalasia may be more efficacious alternative to PD (ACG)
- POEM preferred for type III achalasia (ACG/ASGE)





# **Opiates an Issue?**



Ratuapli et al. AJG. 2015.

### Treatment Algorithm



An Bar