Esophagus, benign disease

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Contents

- Tumor
- Diverticulum
- Achalasia
- Perforation

BENIGN TUMOR

By cell type	By location
Epithelial Squamous cell papilloma Fibrovascular polyp Adenoma Inflammatory pseudotumor Inflammatory polyp	Intraluminal Fibrovascular polyp Squamous cell papilloma
Nonepithelial ***Leiomyoma*** Hemangioma Fibroma Neurofibroma Schwannoma Rhabdomyoma Lipoma Lymphangioma Hamartoma	Intramural ***Leiomyoma*** Inclusion cysts Rhabdomyoma Lipoma Hamartoma Hemangioma Granular cell tumor neurofibroma
Heterotopic Granular cell tumor Chondroma Osteochondroma Giant cell tumor Amyloid tumor Eosinophilic granuloma	Extraluminal Duplication cyst

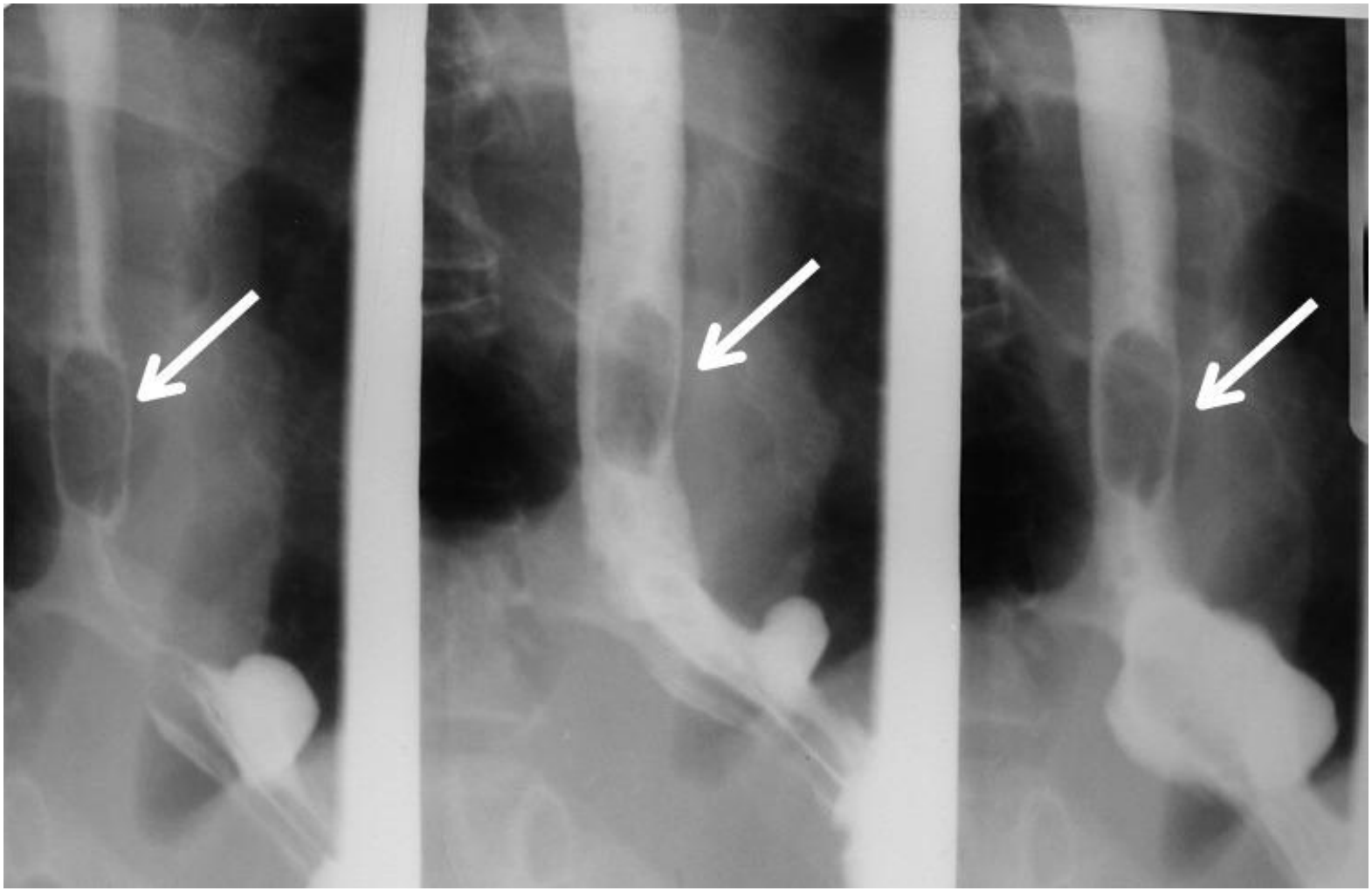
Clinical feature

- Asymptomatic
- Obstruction from intraluminal growth
- Compression of adjacent tissue by extraluminal tumor
- Regurgitation of pedunculated tumor
- Ulceration and bleeding

Leiomyoma

- Most common, 70% of benign lesions
- Inner circular muscle layer
- In the distal and mid-thoracic esophagus
- Never undergo sarcomatous degeneration.

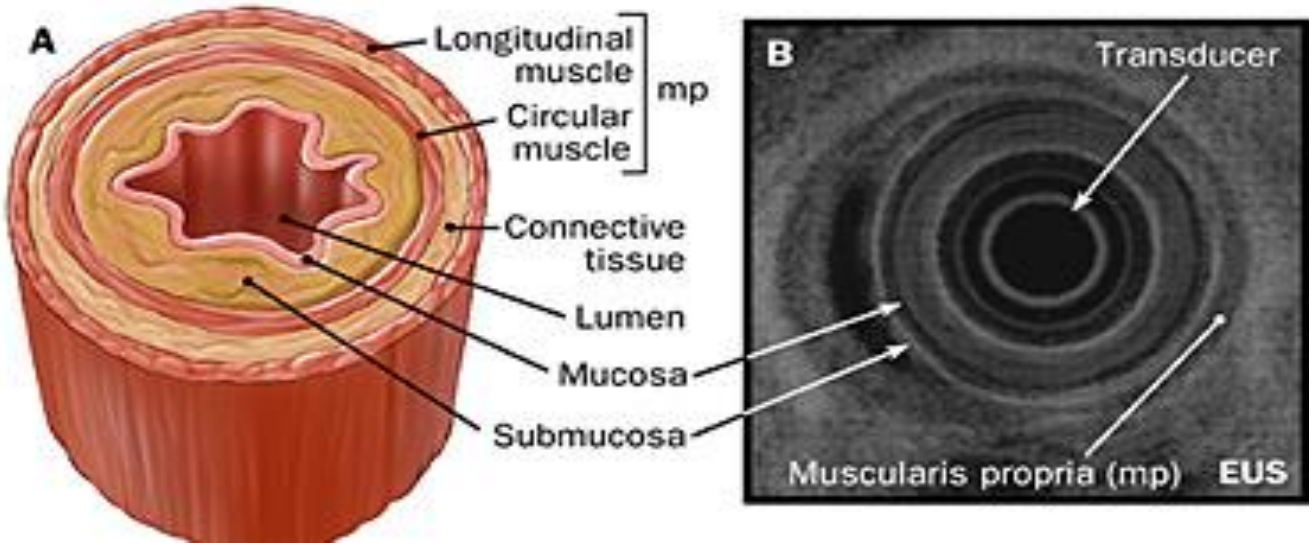
Esophagography



EsophagoGastroDuodenoscopy

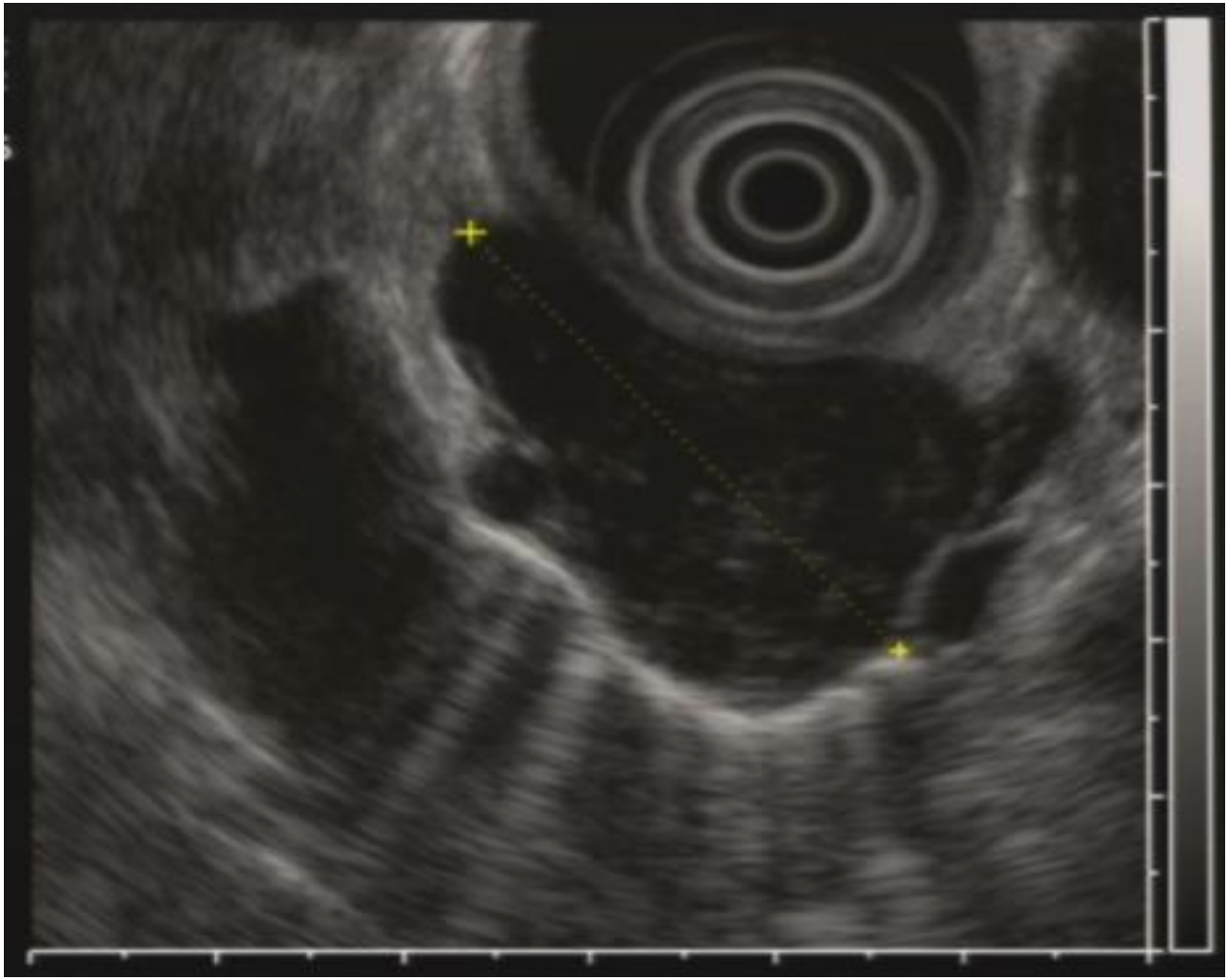
Chest CT

Endoscopic UltraSonography



EUS layer	Tumors
First/ second (mucosa/ deep mucosa)	Squamous papilloma Fibrovascular polyp
Third (submucosa)	Lipoma Fibroma Neurofibroma
Fourth (muscularis propria)	Leiomyoma Cyst
Fifth	cyst

Endoscopic UltraSonography



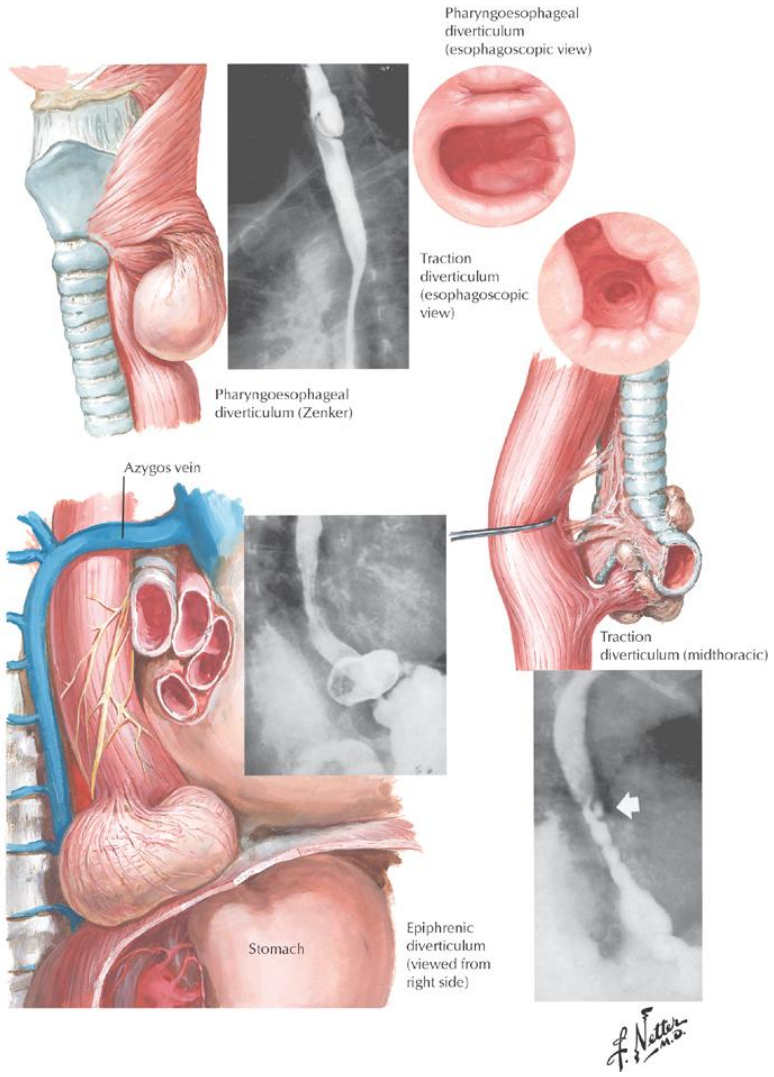
Surgical Indications

- Presence of symptoms
- Confirmation of pathology to exclude malignancy
  - diameter of 3 cm or more
  - nodular shape, ulceration depth of 5mm or more,
  - heterogeneous internal echo, presence of an anechoic area
- Diameter > 2cm
- Evidence of growth

DIVERTICULUM OF ESOPHAGUS

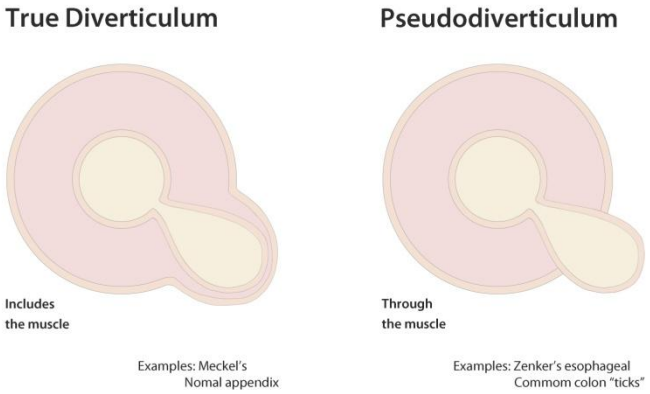
Classifications

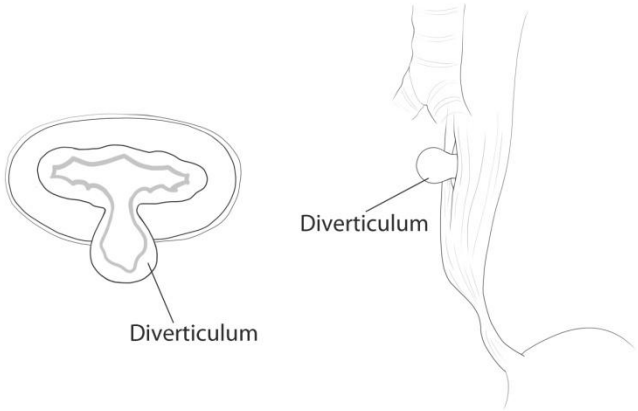
- By location
  - Pharyngoesophageal
  - Parabronchial
  - Epiphrenic



Classifications

- By types
  - Traction
  - Pulsion





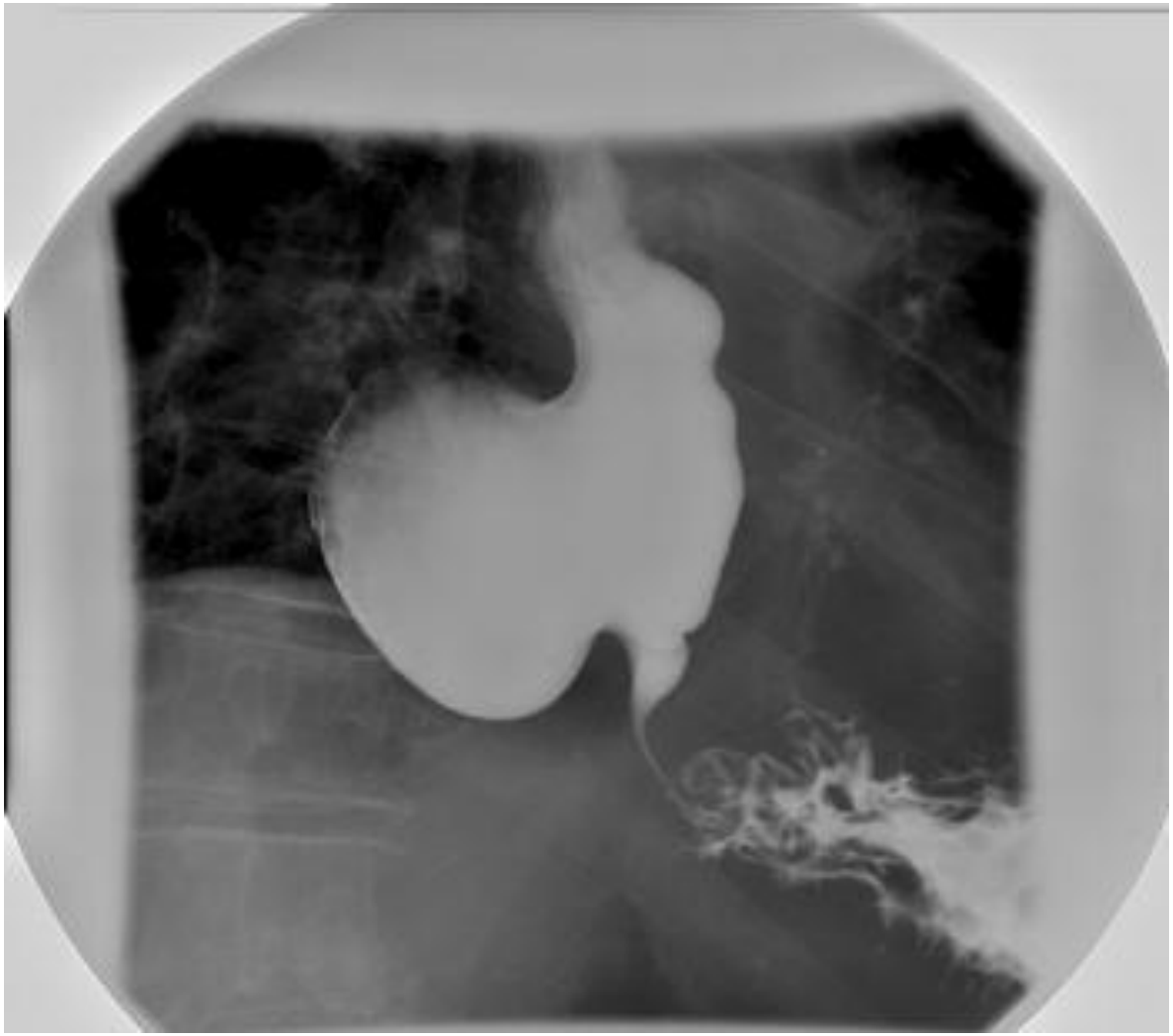
Symptoms

- Traction; by itself produce no symptoms
- Pulsion; functional disorder symptoms

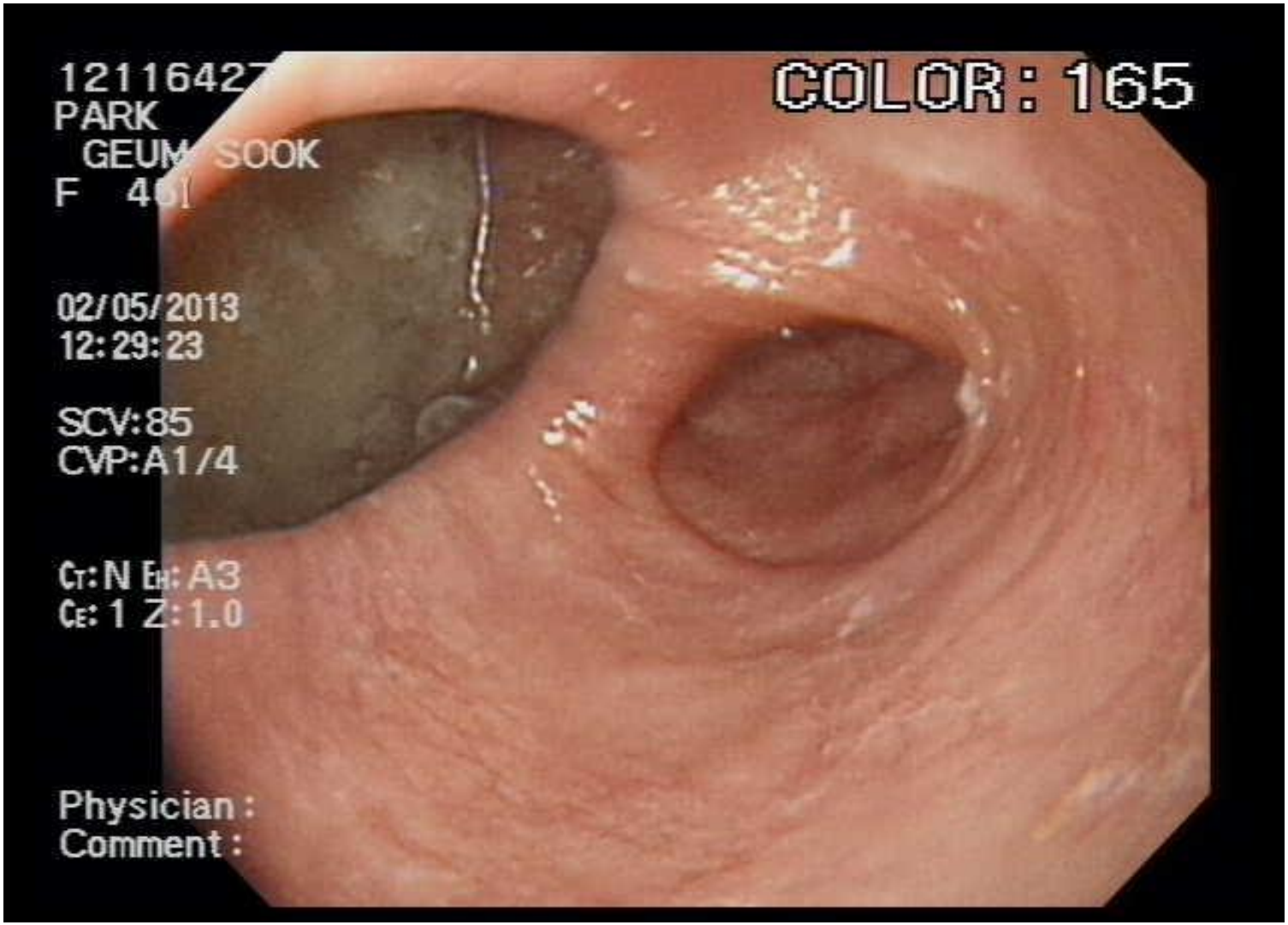
- pharyngoesophageal >> epiphrenic;
  d/t limited length of esophageal reservoir

- accumulation of carcinogens in pocket, very rare, squamous cell ca.

Esophagography



EGD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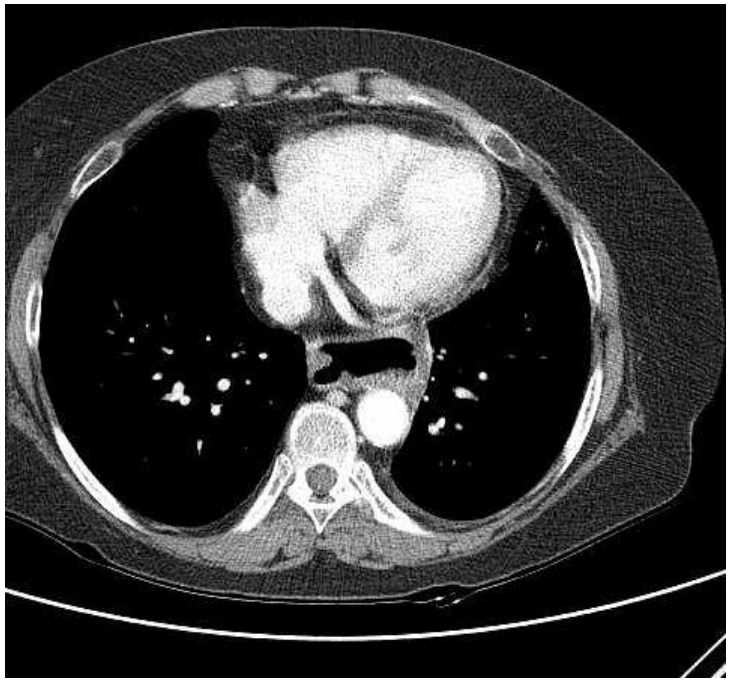
Physician :
Comment :

Chest CT



Surgery

- Indications
  - Symptomatic
    - Globus sensation
    - Aspiration pneumonia

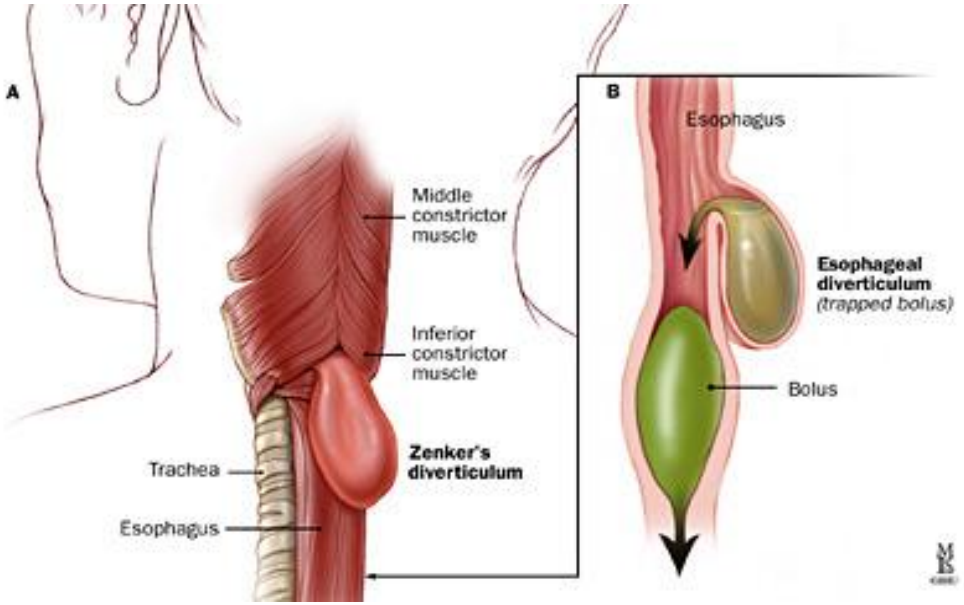
    - Dysphagia
    - Regurgitation

Pharygoesophageal diverticulum

ZENKER'S DIVERTICULUM

Surgery

- Myotomy alone
- Myotomy + diverticulum suspension
- Diverticulectomy + myotomy
- MIS



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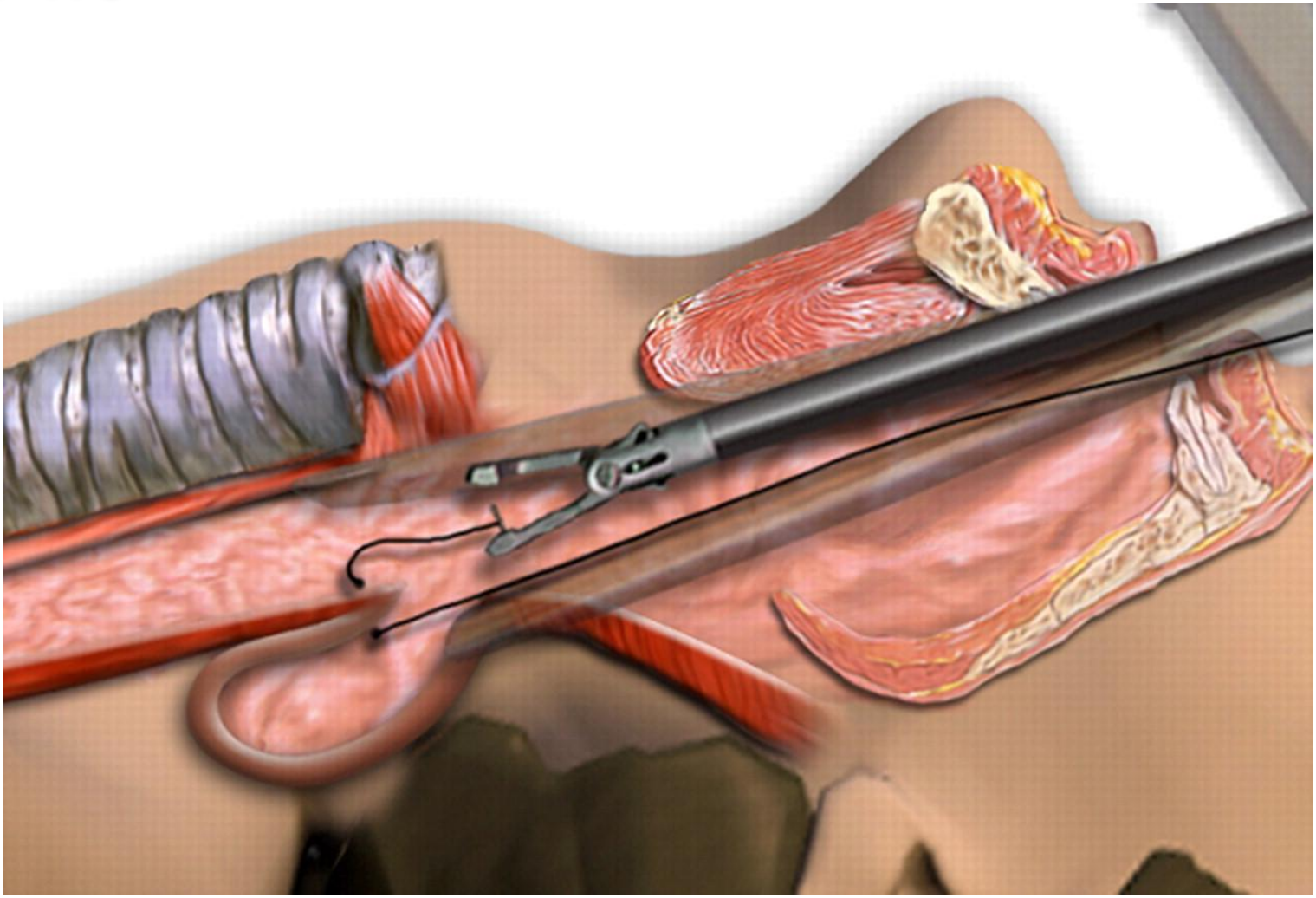
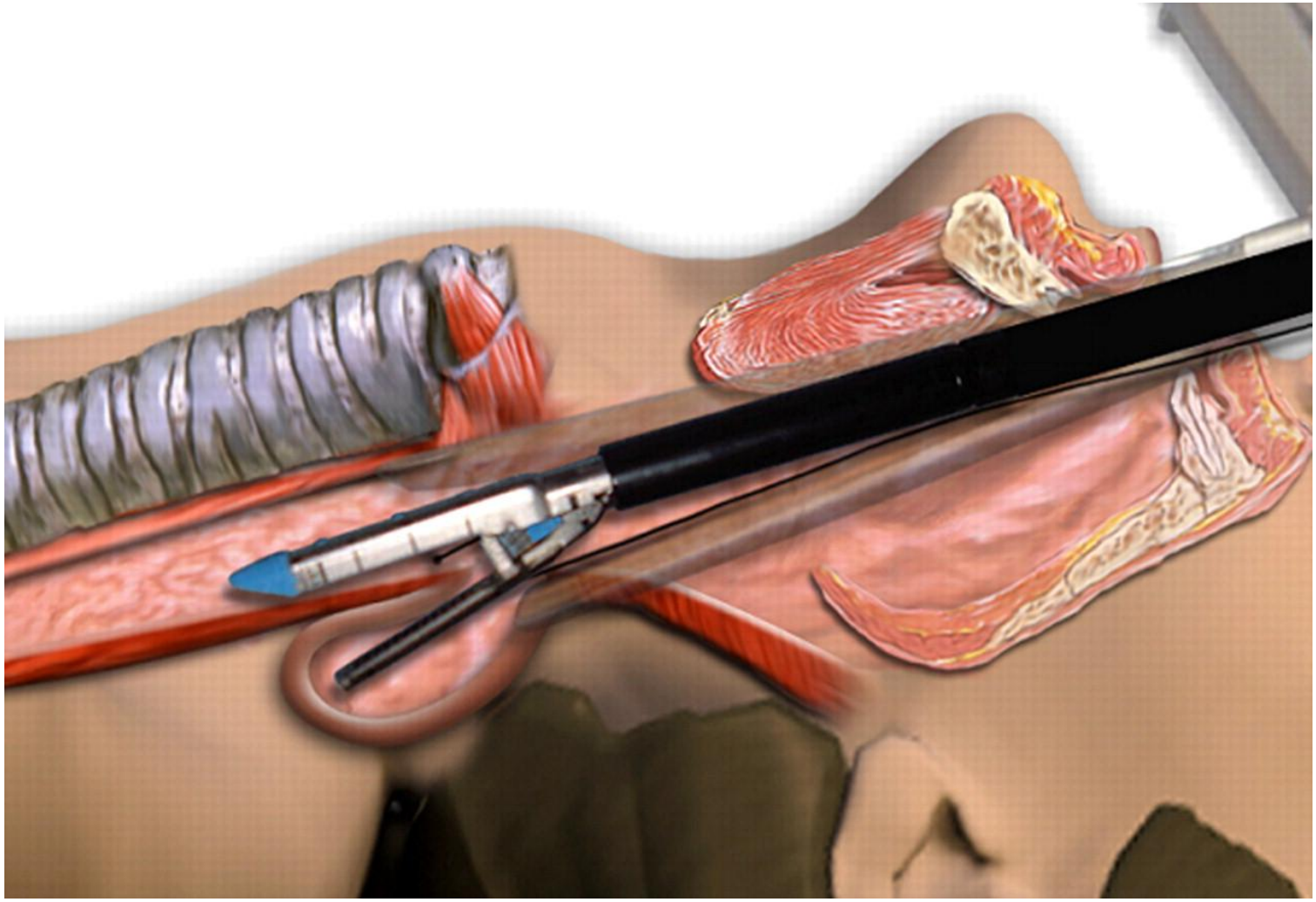


Weksler B et al. MMCTS 2010;2010:mmcts.2007.002923

Stapling of the diverticulum using the modified Endo GIA 30.



Weksler B et al. MMCTS 2010;2010:mmcts.2007.002923

EPIPHRENIC DIVERTICULECTOMY

Diverticulectomy

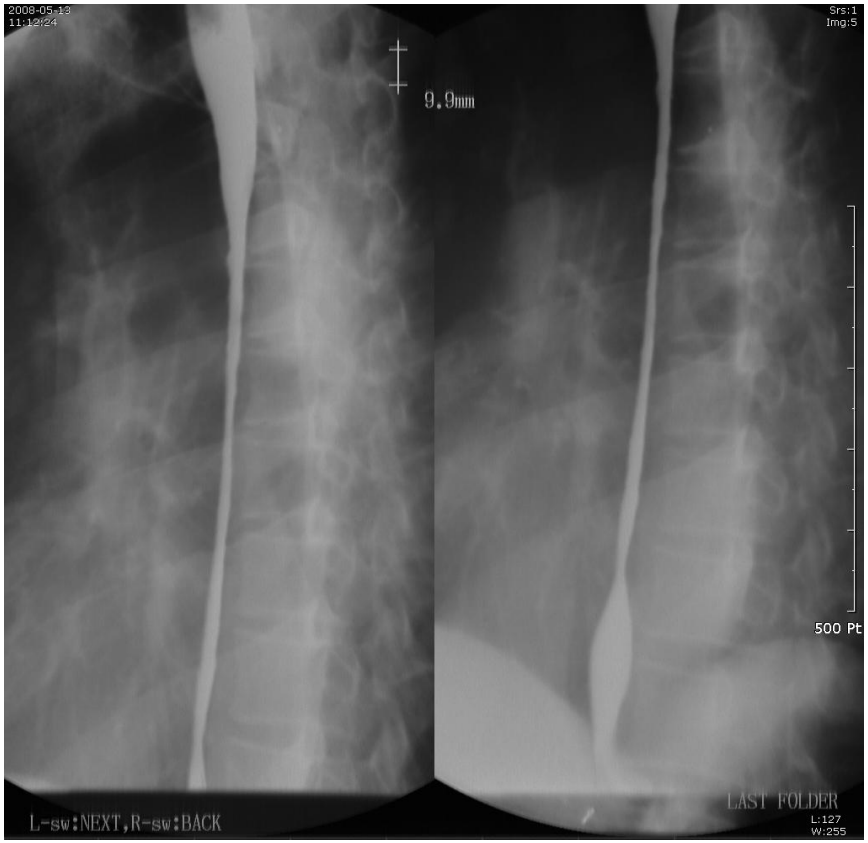
Postoperative Esophagography

ESOPHAGEAL STENOSIS

Classifications

- Corrosive injury
- Congenital
  - fibromuscular thickening
  - tracheobronchial remnants
  - membranous web
- Anastomotic stricture
- Achalasia

Stricture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500 Pt
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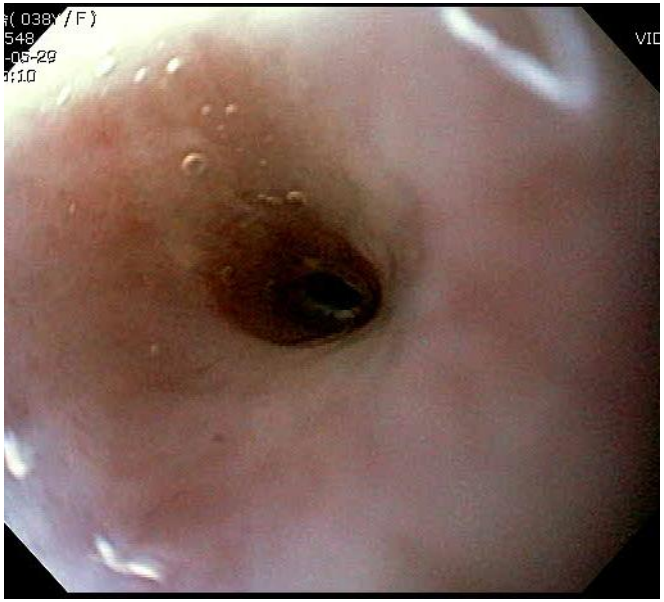
L=sw:NEXT,R=sw:BACK
L:127
W:255



Treatment

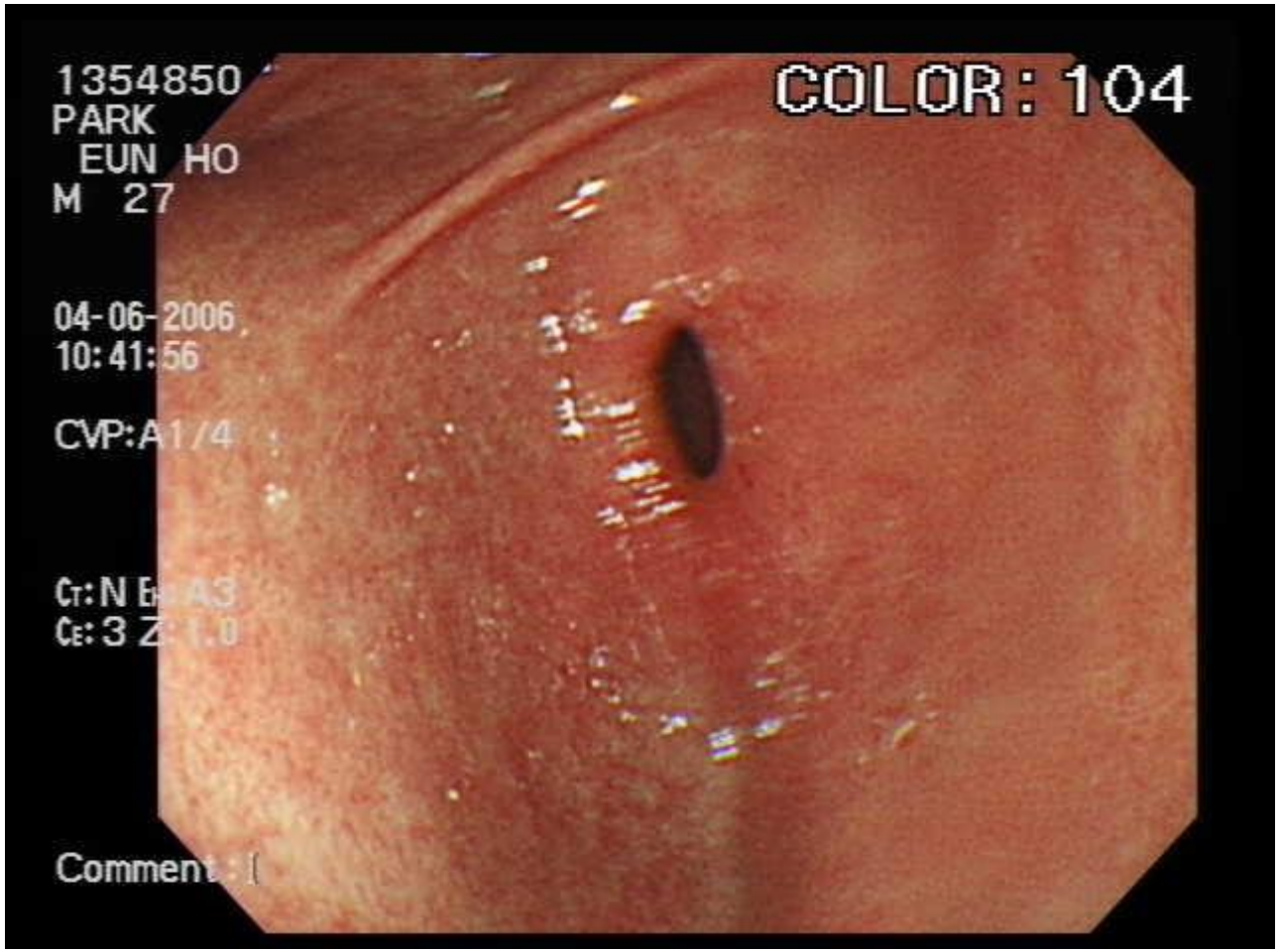
- Nutritional Support
  - G-tube
  - J-tube
- Mechanical dilatation
  - Balloon
  - Bougienage
- Surgical Treatment
  - Cervical esophago-colo-gastrostomy
  - esophagectomy

Achalasia

- motility disorder of uncertain etiology
- manometrically by increased basal LES
- incomplete relaxation of the sphincter on swallowing
- aperistalsis of the body of the esophagus

Esophagography

EGD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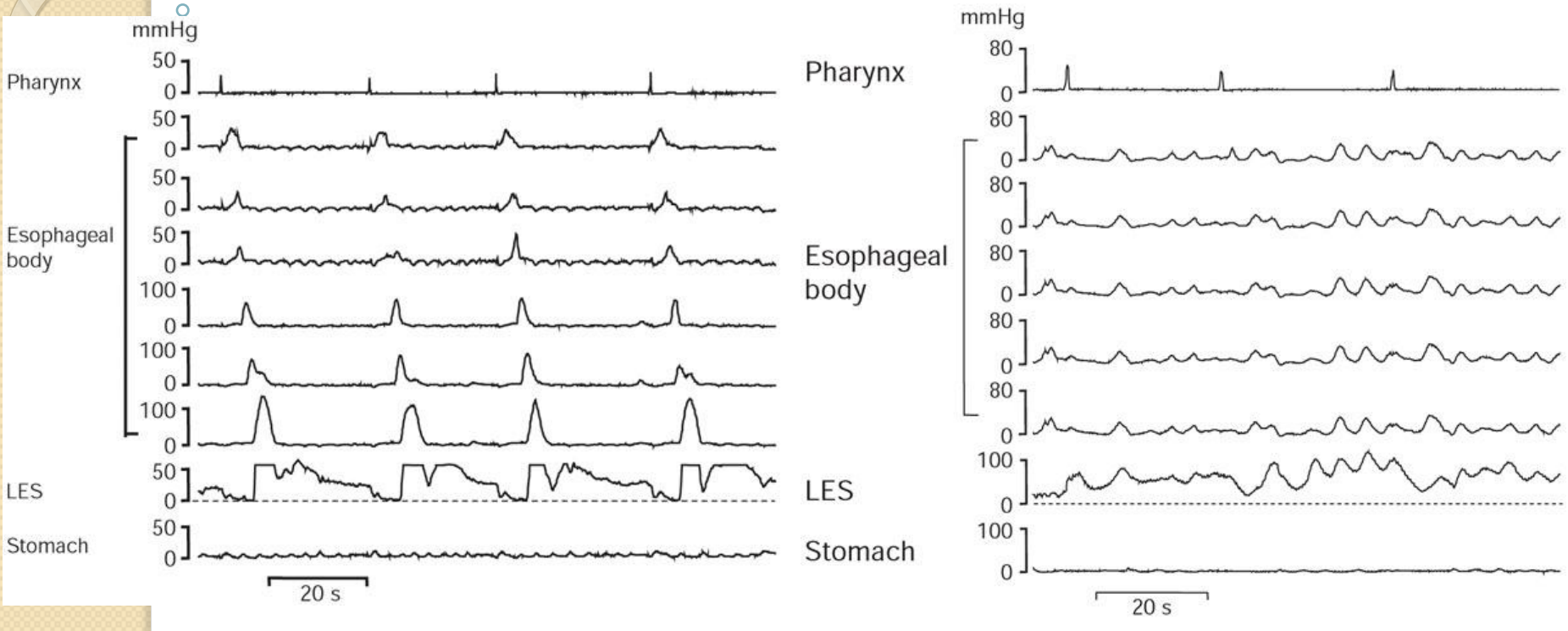
CVP:A1/4
COLOR:104
Comment :

Manometry of Achalasia



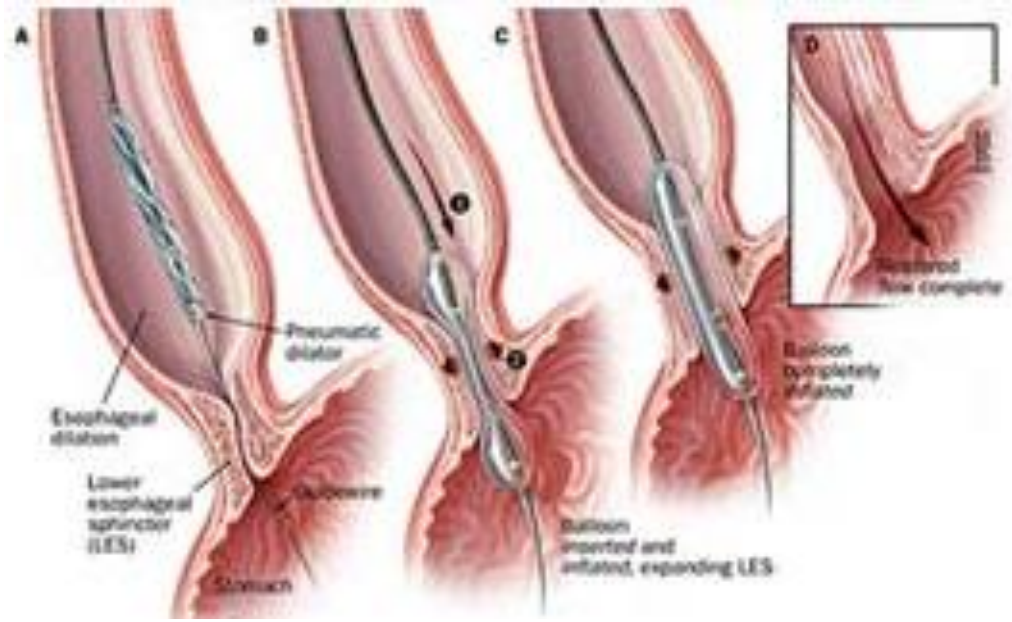
(1) incomplete LES relaxation with swallowing,
(2) absent peristalsis—only low-amplitude spontaneous activity is present,
(3) intraesophageal pressure that is higher than intragastric pressure

Treatment

- Principles of management
  - Palliation of symptoms
  - Relieving the functional obstruction at the level of LES by disruption or paralysis of the esophageal muscle.
  - Must strike a balance between the relief of dysphagia and potential creation of pathologic gastroesophageal reflux

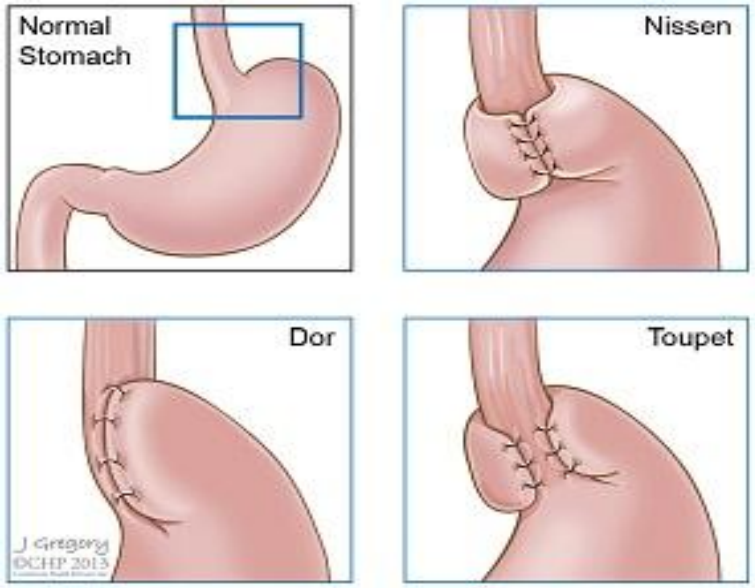
Medical therapy

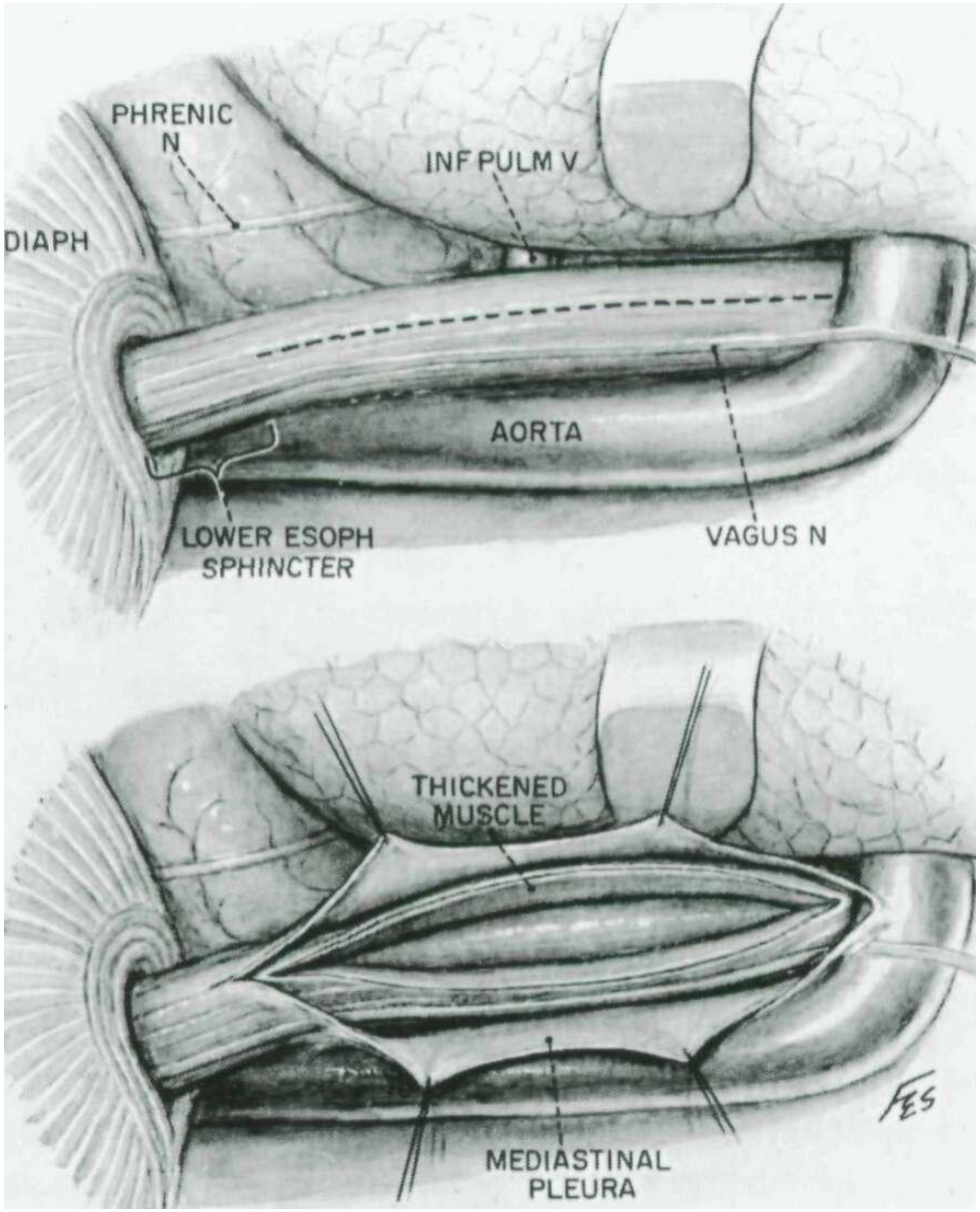
- Pneumatic dilatation;
- Bougienage
- Botulinum toxin



Surgical treatment

- Esophagomyotomy;
  - lower 6cm of esophagus
  - EG junction
  - proximal 2cm of the stomach
- Fundoplication
  - Nissen
  - Dor
  - Toupet




PHRENIC
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INF PULM V
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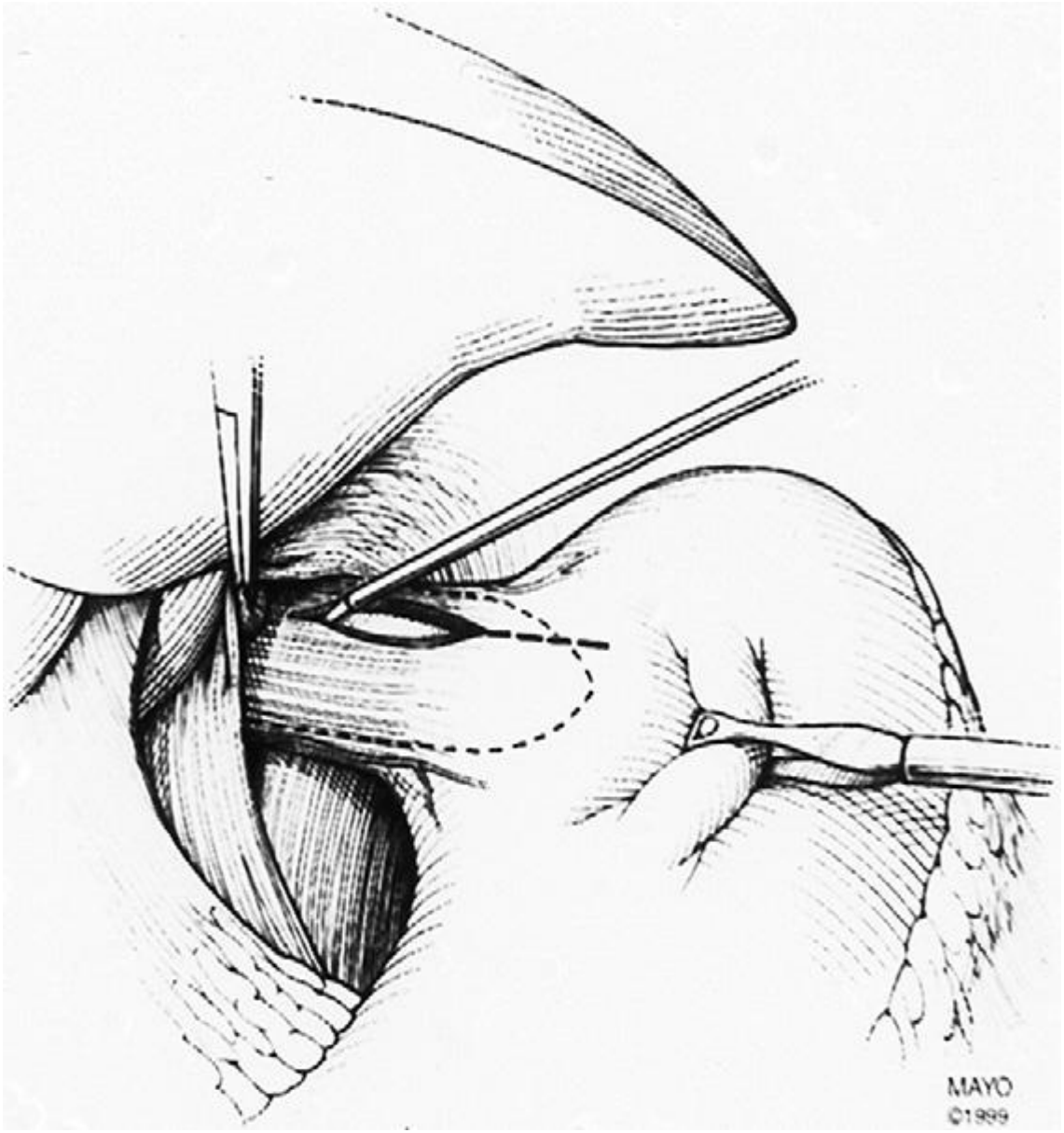
LOWER ESOPH
SPHINCTER
VAGUS N
THICKENED
MUSCLE
MEDIASTINAL
PLEURA
FES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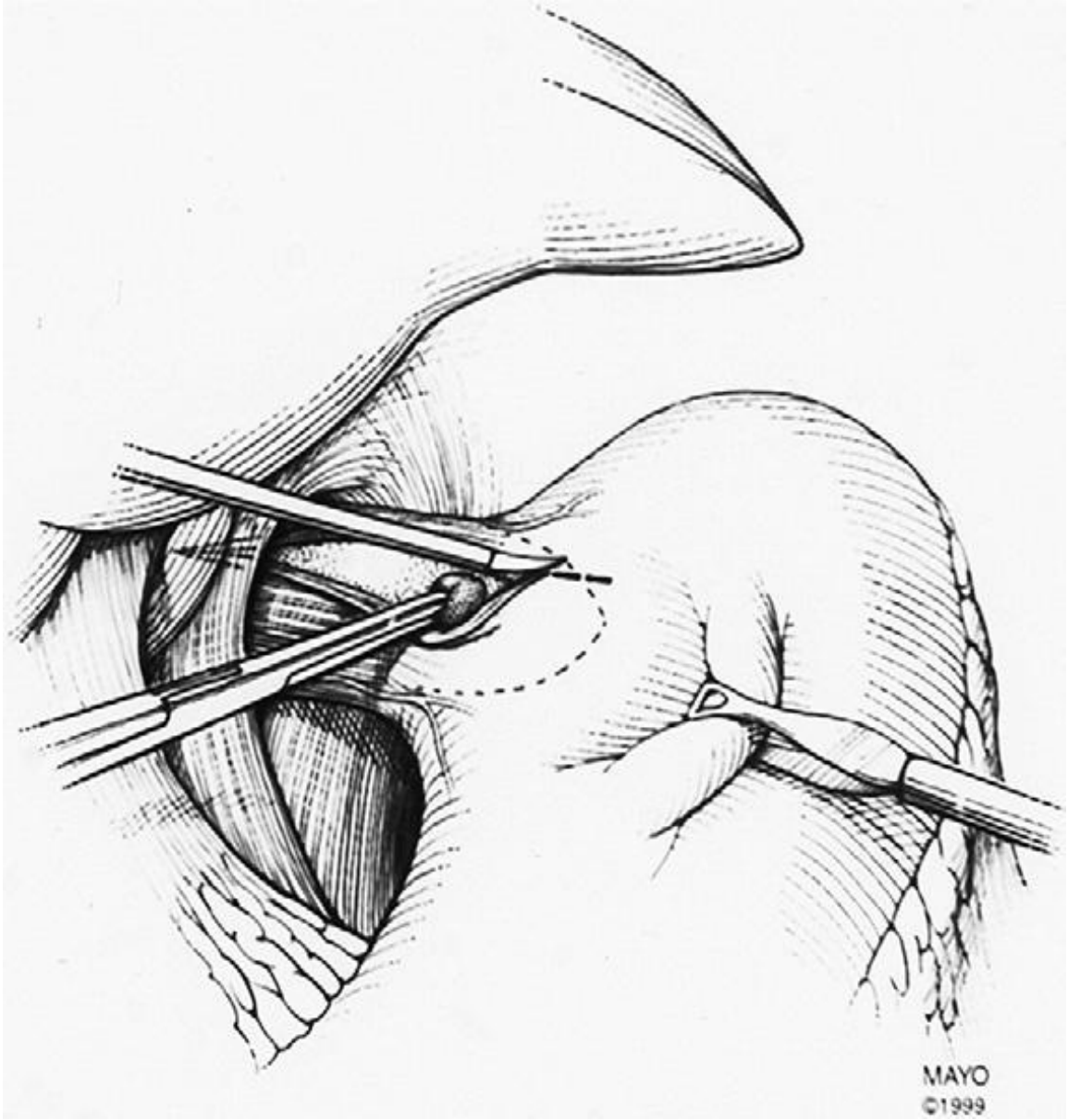
©1999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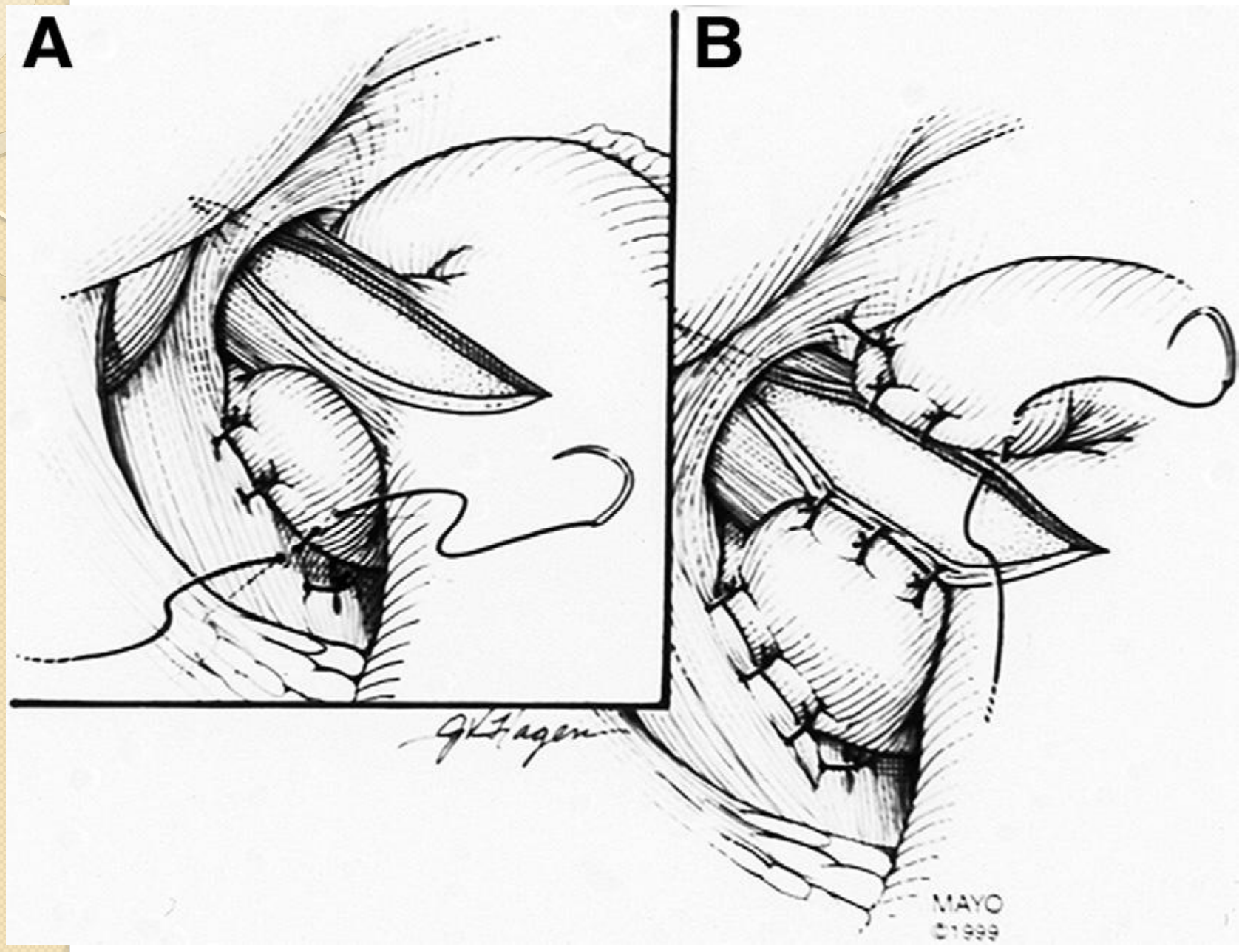
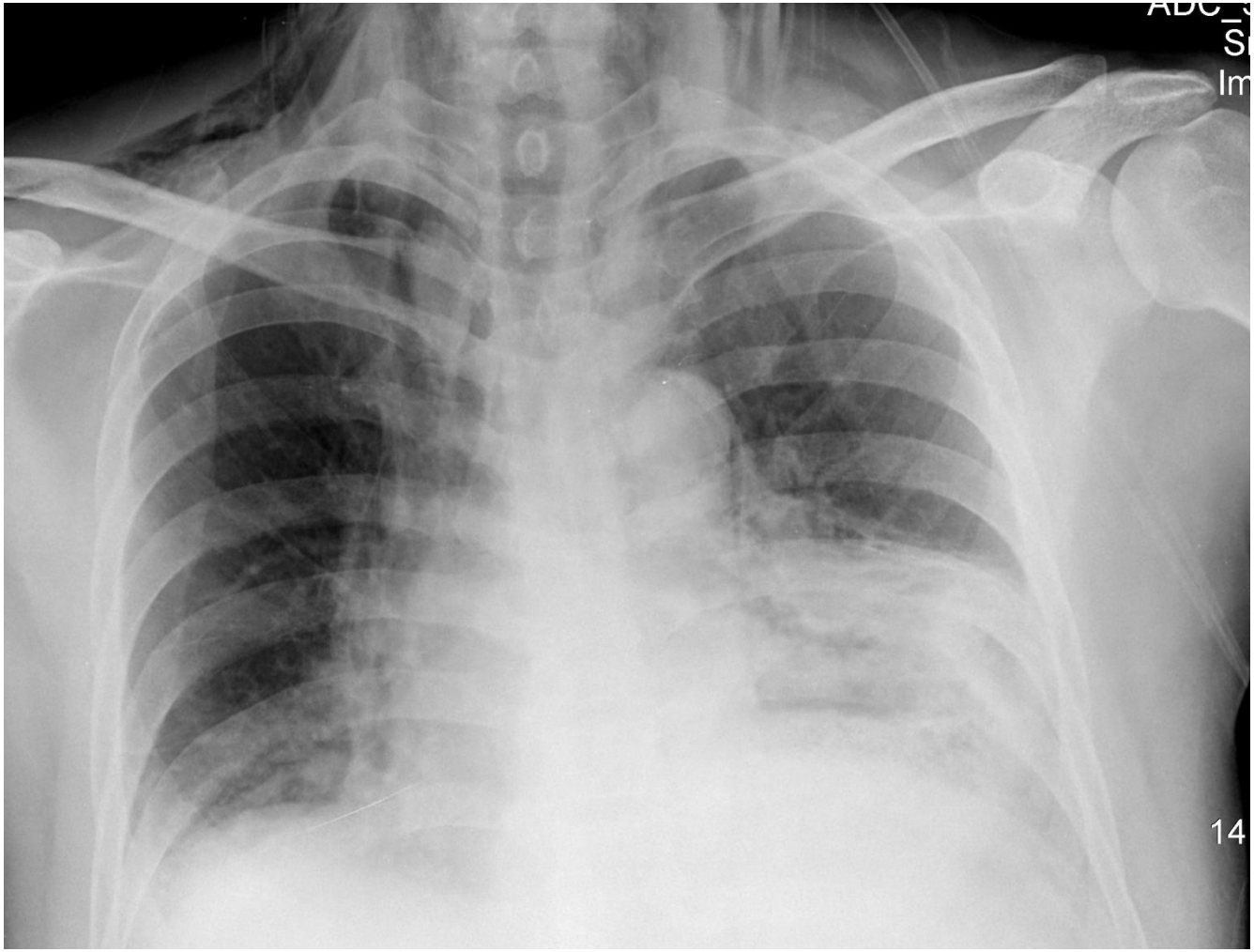

A
B
MAYO
©1999

ESOPHAGEAL PERFORATION

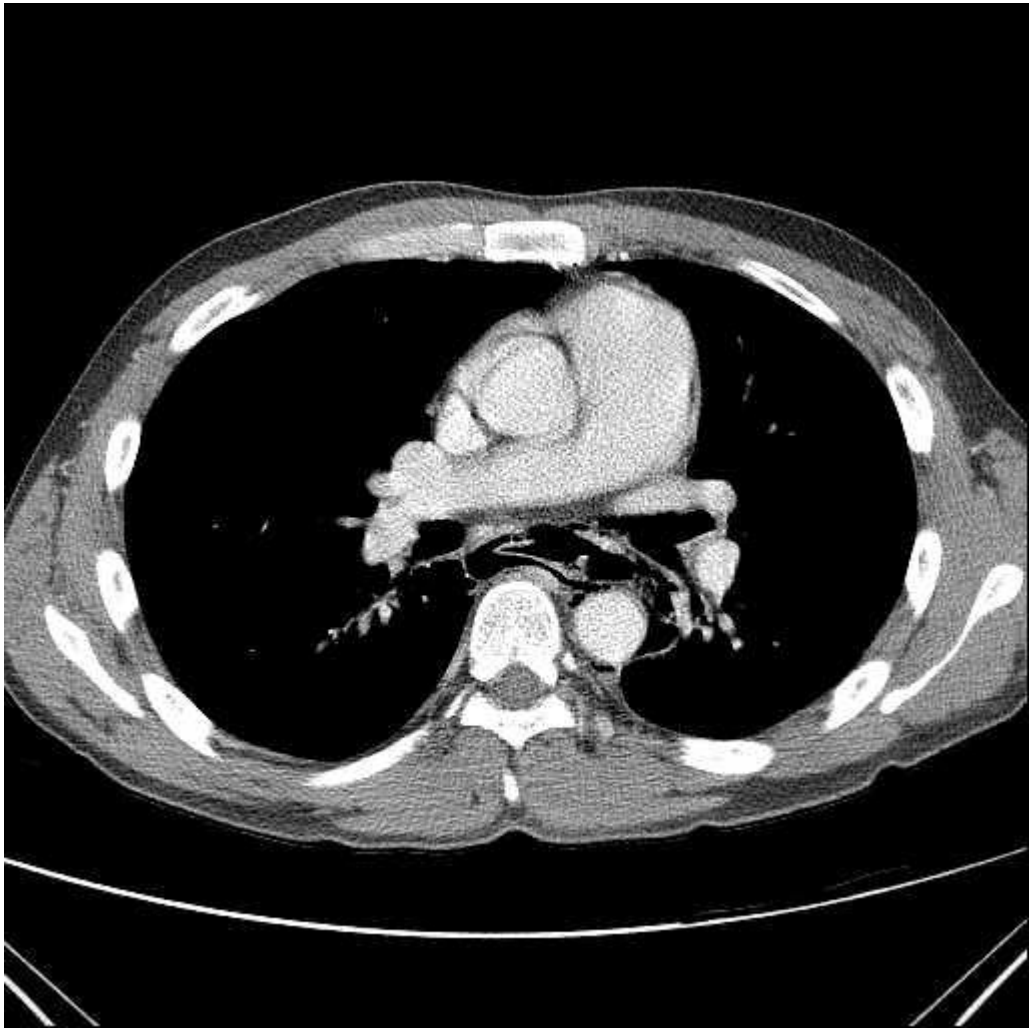
Perforation

- Etiology
  - Instruments : EGD
  - Foreign body
  - Spontaneous (Boerhaave's syndrome)

CPA



Chest CT



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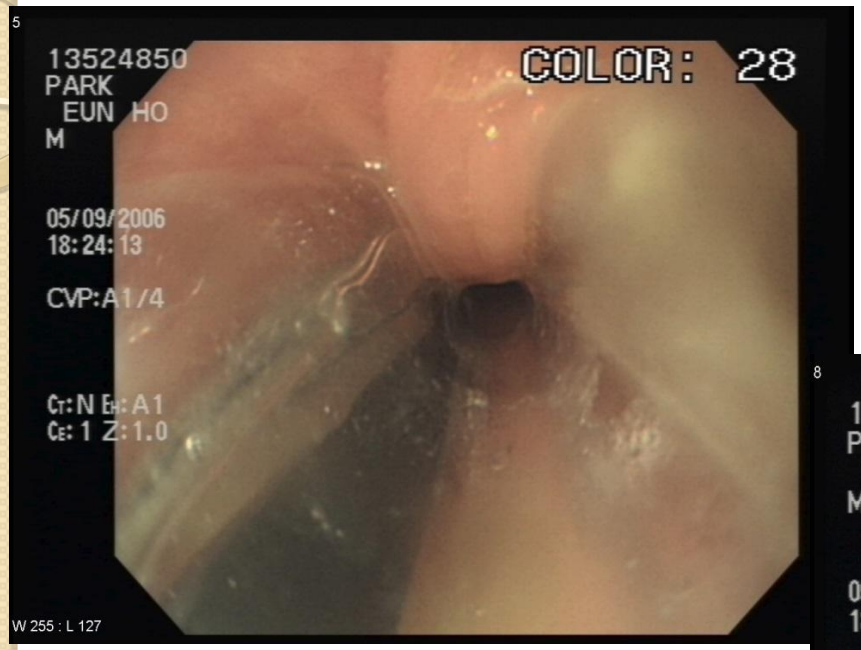
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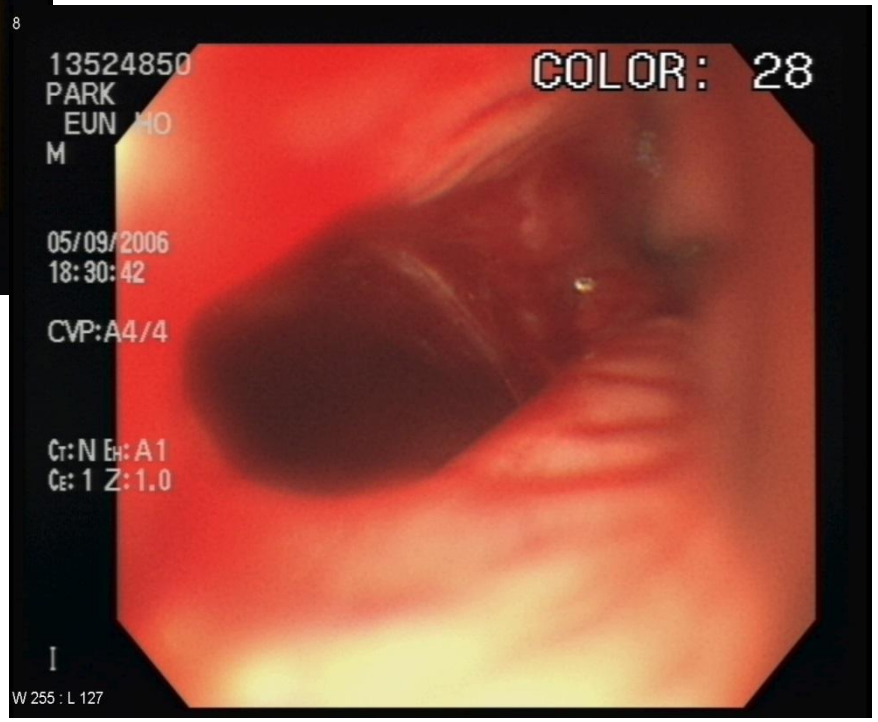
W 255 : L 127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CE:1 Z:1.0
I
W 255 : L 127

VATS primary repair

Summary

- Leiomyoma
  - Biopsy
  - EUS
- Diverticulum
  - Location
  - Predisposing cause
- Achalasia
  - Balloon dilatation
- Perforation
  - Primary repair
  - Mucosa >> muscle