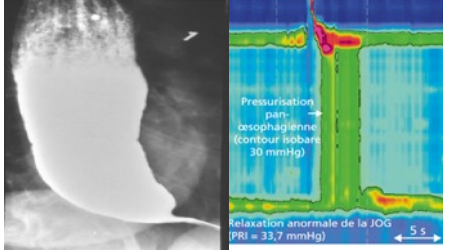
CONVERGENCES ENTRE
ENDOSCOPIE ET
ONCOLOGIE DIGESTIVE

ORGANISÉ PAR
MEETING-PRO

18 Juin 2021
9h - 17h30




# Controverse sur achalasie: POEM

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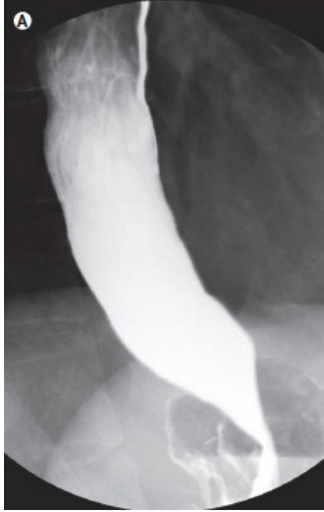
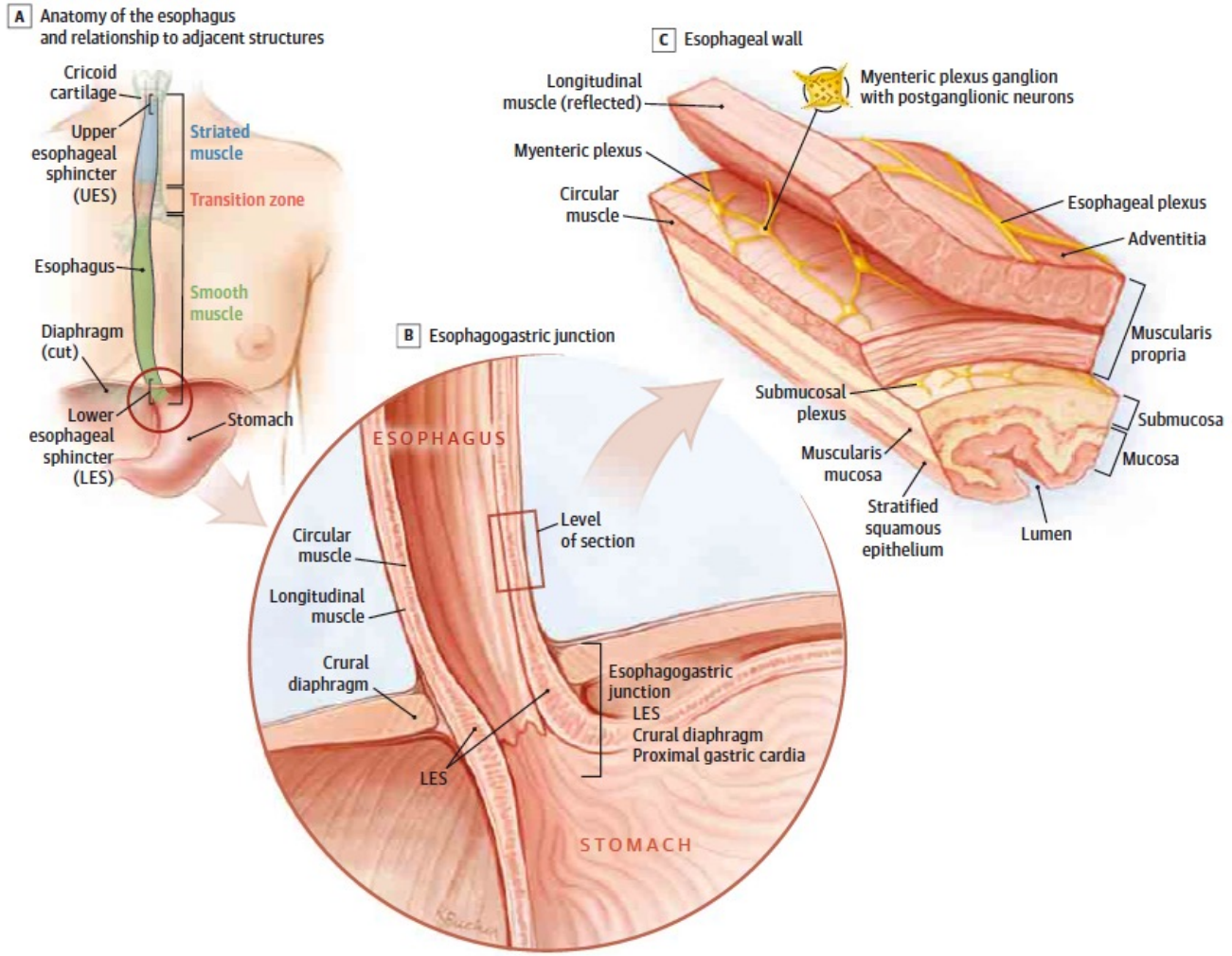
# Définition



- Trouble moteur œsophagien le plus fréquent
- Absence de relaxation du SIO
- Apéristaltisme du corps de l'œsophage
- Résultant de la disparition des neurones myentériques (plexus d'Auerbach) qui coordonnent le péristaltisme œsophagien et la relaxation du SIO.

# Anatomie


A Anatomy of the esophagus and relationship to adjacent structures
Cricoid cartilage
Upper esophageal sphincter (UES)
Striated muscle
Transition zone
Esophagus
Smooth muscle
Diaphragm (cut)
Lower esophageal sphincter (LES)
Stomach
B Esophagogastric junction
ESOPHAGUS
Level of section
Circular muscle
Longitudinal muscle
Crural diaphragm
Esophagogastric junction
LES
Crural diaphragm
Proximal gastric cardia
LES
STOMACH
C Esophageal wall
Longitudinal muscle (reflected)
Myenteric plexus ganglion with postganglionic neurons
Myenteric plexus
Circular muscle
Esophageal plexus
Adventitia
Muscularis propria
Submucosal plexus
Submucosa
Muscularis mucosa
Mucosa
Stratified squamous epithelium
Lumen

# Données épidémiologiques

- Incidence annuelle = 2/100 000
- Avant 16 ans: 0.2/100 000 (achalasie syndromique ?)
- A 80 ans:  17/100 000
- Prévalence = 15-27/100 000
- Age moyen au diagnostic = 51 ans
- Sex ratio = 1

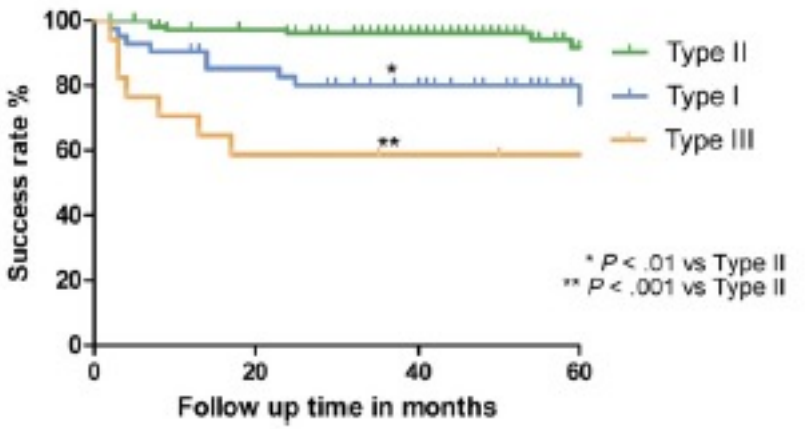
Van Hoeij et  al, Neurogastroenterol motil 2018
Harvey P et al, Gut 2019

# Intérêt de la manométrie oesophagienne

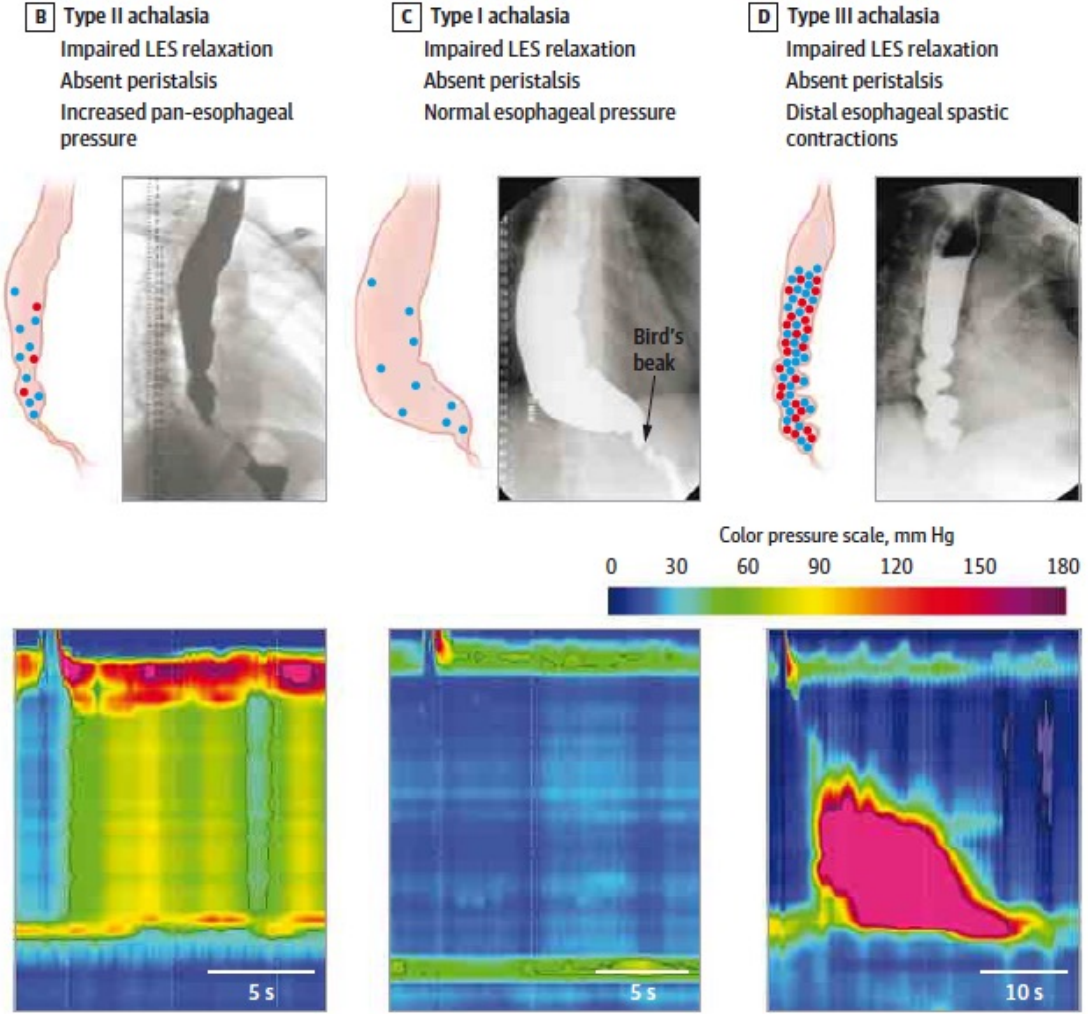
**Prédictive de la réponse au traitement**

Données sur 176 pts
European Achalasia Trial
(PD vs LMH)

Type I et II vs III (spastique)




Rohof, Gastroenterology 2013


B Type II achalasia
Impaired LES relaxation
Absent peristalsis
Increased pan-esophageal pressure
C Type I achalasia
Impaired LES relaxation
Absent peristalsis
Normal esophageal pressure
D Type III achalasia
Impaired LES relaxation
Absent peristalsis
Distal esophageal spastic contractions
Bird's beak
Color pressure scale, mm Hg
0 30 60 90 120 150 180
5 s
5 s
10 s

# Avant 2010: options thérapeutiques

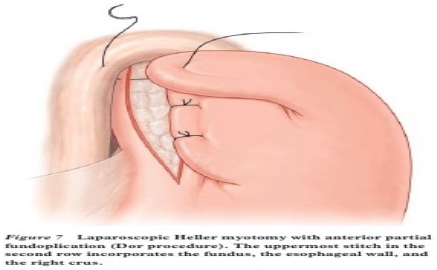
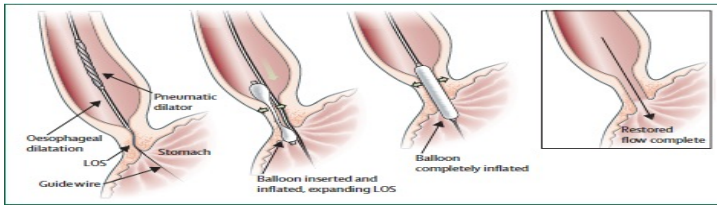


*Figure 7* Laparoscopic Heller myotomy with anterior partial fundoplication (Dor procedure). The uppermost stitch in the second row incorporates the fundus, the esophageal wall, and the right crus.

**Myotomie de Heller laparoscopique**




**Dilatation pneumatique**

# Dilatation pneumatique ou chirurgie ?

- RCT, 201 patients, suivis 4 ans en moyenne
- Pas de différence  de succès clinique, manométrique, radiologique, ou QDV à 1 et 2 ans
- Perforation: 4% (2 pts opérés) vs plaie muqueuse per op: 12%

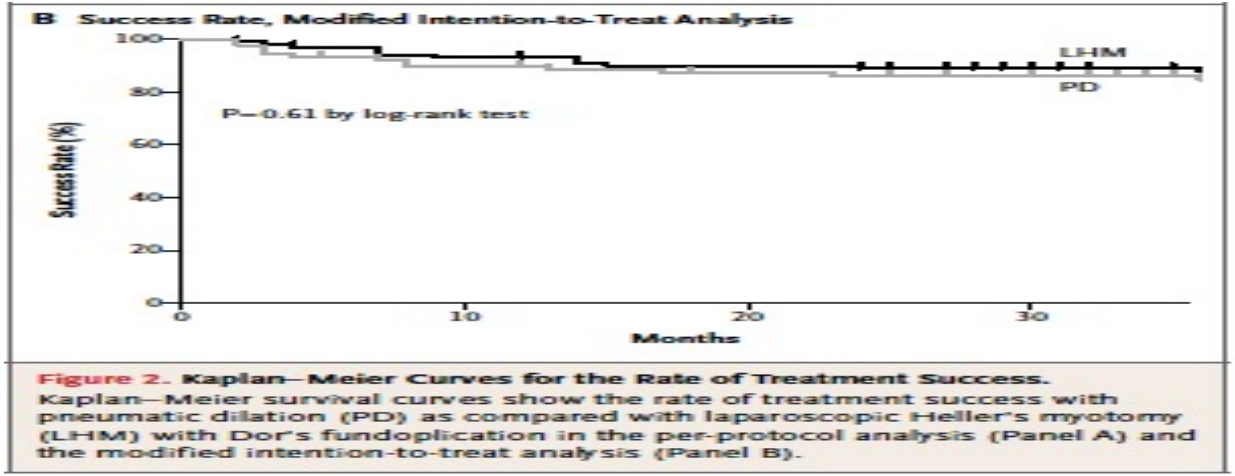
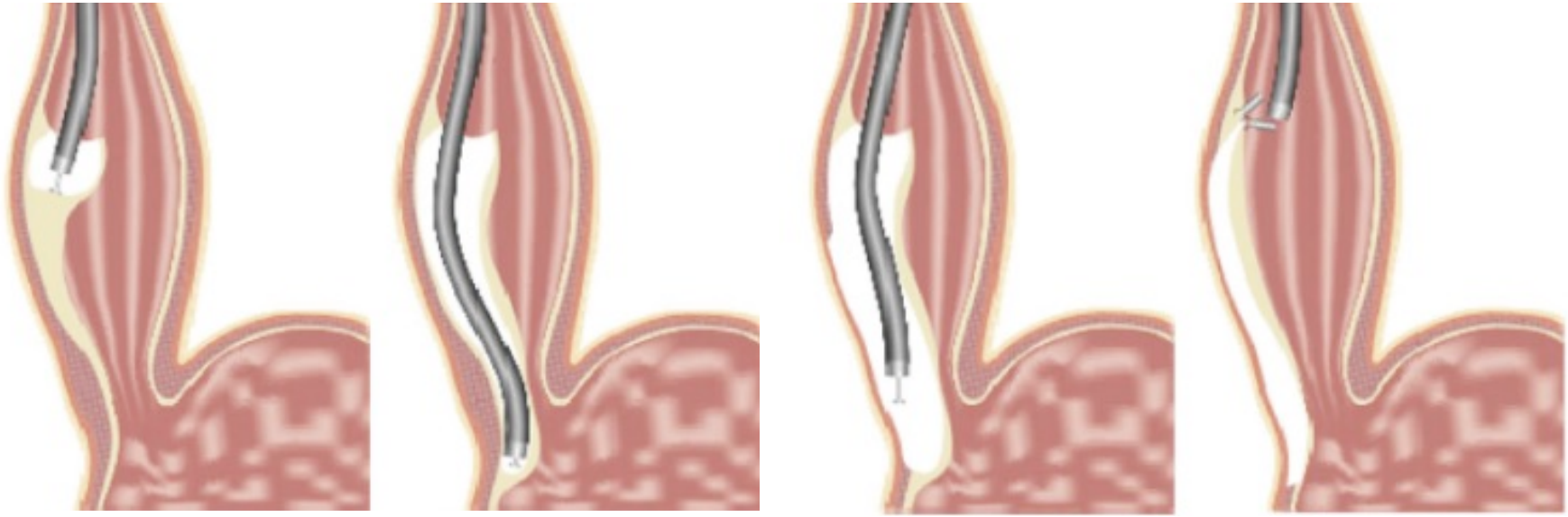



Figure 2. Kaplan–Meier Curves for the Rate of Treatment Success.
Kaplan–Meier survival curves show the rate of treatment success with pneumatic dilation (PD) as compared with laparoscopic Heller's myotomy (LHM) with Dor's fundoplication in the per-protocol analysis (Panel A) and the modified intention-to-treat analysis (Panel B).

Boeckxstaensl, NEJM 2011

# A partir 2010: POEM : PerOral Endoscopic Myotomy



Incision 10-12cm au-dessus du cardia, bord droit (PC)

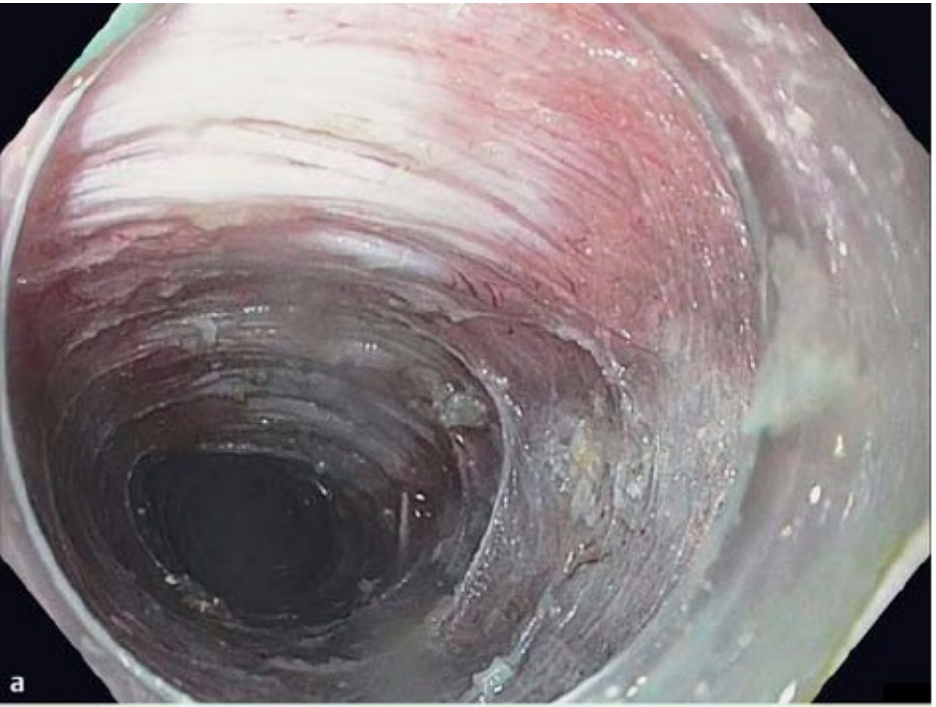
Création d'un tunnel descendant en sous-cardial

Myotomie

Fermeture de l'incision

Inoue H, Endoscopy 2010

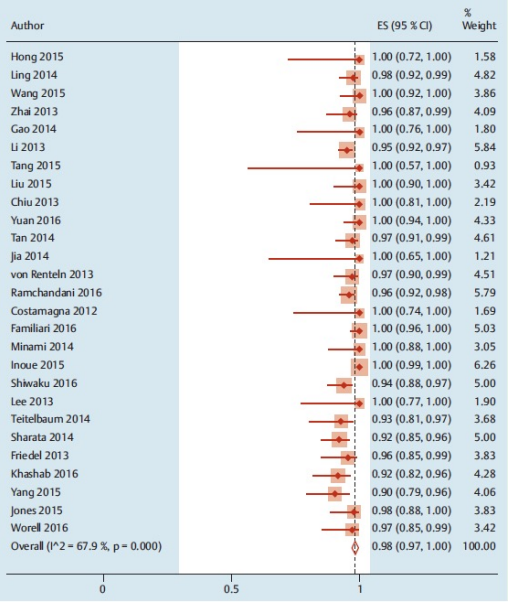
# A partir 2010: POEM : PerOral Endoscopic Myotomy





Inoue H, Endoscopy 2010

# Résultats POEM:




Méta analyse 36 études (2373 pts)

Succès clinique ≈ 90%, prolongé au moins 3 ans

Akintoye, Endoscopy 2016

# Résultats POEM:

| Adverse outcomes | Studies, n | Patients, n | Rate (95 %CI), % | $I^2$, % |
|---|---|---|---|---|
| **Perioperative** | | | | |
| Mucosal injury | 20 | 1682 | 4.8 (2.0 – 8.5) | 79 |
| Esophageal perforation | 25 | 1537 | 0.2 (0 – 1.1) | 36 |
| Major bleeding | 28 | 1794 | 0.2 (0 – 1.4) | 42 |
| Subcutaneous emphysema | 24 | 1286 | 7.5 (3.5 – 12) | 85 |
| Pneumothorax | 19 | 1676 | 1.2 (0.1 – 4.3) | 88 |
| Pneumomediastinum | 16 | 1012 | 1.1 (0.1 – 4.7) | 81 |
| Pneumoperitoneum | 22 | 1760 | 6.8 (1.9 – 14) | 94 |
| Pleural effusion | 16 | 1410 | 1.2 (0 – 8.3) | 96 |
| **Gastroesophageal reflux** | | | | |
| Symptomatic | 29 | 2142 | 8.5 (4.9 – 13) | 87 |
| Esophagitis on EGD | 20 | 1762 | 13 (5.0 – 23) | 96 |
| Abnormal exposure on 24-hour pH study | 5 | 336 | 47 (21 – 74) | 96 |

**Effets secondaires <10%**

- Emphysème SC
- Pneumopéritoine

**Reflux +++**

Akintoye, Endoscopy 2016

# Bon candidat au POEM?

- Achalasie type III
- Echec DP/chirurgie

# POEM pour achalasie III

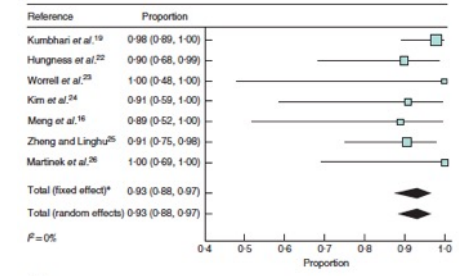
Méta analyse (20 études, 1575 pts)

Type III POEM vs LMH

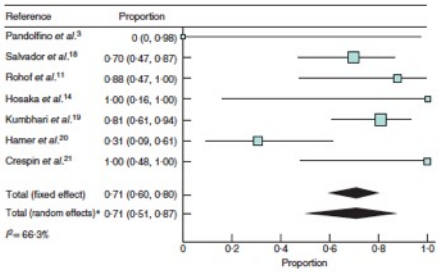
- Succès **93%** vs 71% (OR 3.5 p<0.007)

Type I POEM vs LHM

- Succès **95%** vs 81% (OR 2.97 p=0.032)




**d** Peroral endoscopic myotomy



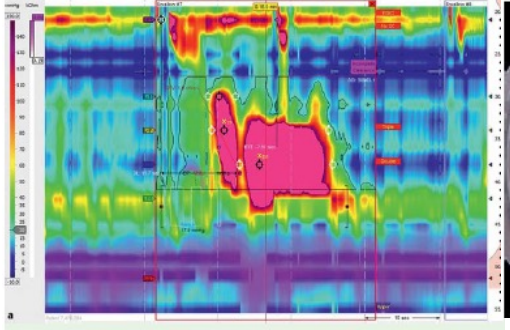

**c** Laparoscopic Heller myotomy

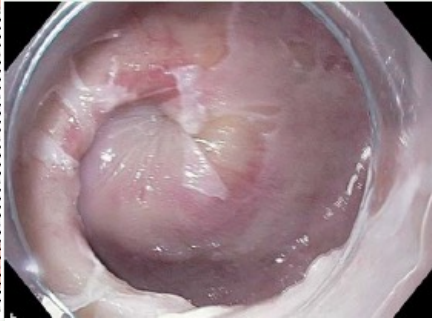
**Meta-analysis of clinical outcome after treatment for achalasia based on manometric subtypes**

C. Andolfi[1] and P. M. Fisichella[2]

Andolfi, BJS 2019

# POEM pour achalasie III



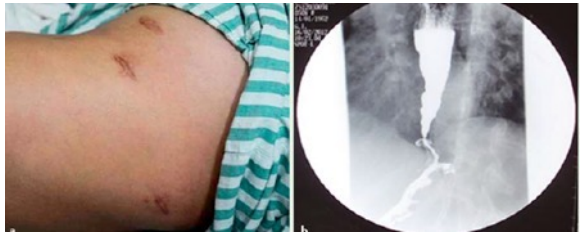


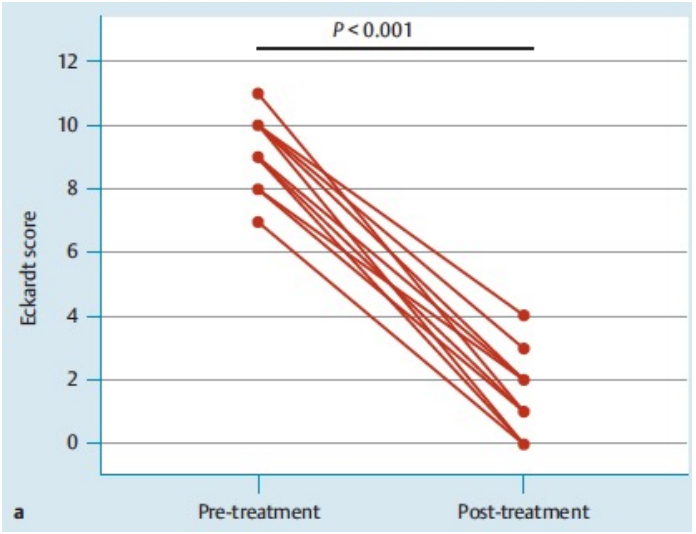
| | POEM n = 49 | LHM n = 26 | *P* value |
|---|---|---|---|
| Median length of myotomy (cm) | 16 (7 – 26) | 8 (6 – 10) | < 0.01 |
| Median procedure time (min) | 102 (43 – 345) | 264 (189 – 331) | < 0.01 |
| Adverse events, n (%) | | | |
| Mild | 2 (4) | 1 (4) | 1 |
| Moderate | 1 (2) | 6 (23) | < 0.01 |
| Total | 3 (6) | 7 (27) | < 0.01 |
| Mean length of stay, days (SD) | 3.3 (1.9) | 3.2 (2.3) | 0.68 |
| PPI therapy, n (%) | 19 (38.8) | 12 (46.1) | 0.7 |
| Eckardt stage II or III, n (%) | 1 (2.0) | 5 (19.2) | 0.01 |
| Need for subsequent therapy, n (%) | 0 | 2 (7.7) | 0.11 |
| Clinical response, n (%) | 48 (98) | 21 (80.8) | 0.01 |
| Duration of follow-up, months (SD) | 8.6 (1.7) | 21.5 (3.9) | < 0.01 |

**Peroral endoscopic myotomy (POEM) vs laparoscopic Heller myotomy (LHM) for the treatment of Type III achalasia in 75 patients: a multicenter comparative study**

Khumbari, EIO 2015

# POEM après échec de chirurgie






Etude princeps 12 pts

Voie post (≠ LMH voie ant)
Eviter les diverticules

Efficacité clinique et manométrique

Zhou, Endoscopy 2013

# POEM après échec de chirurgie

**Table 2** | Series of POEM after failed surgical myotomy

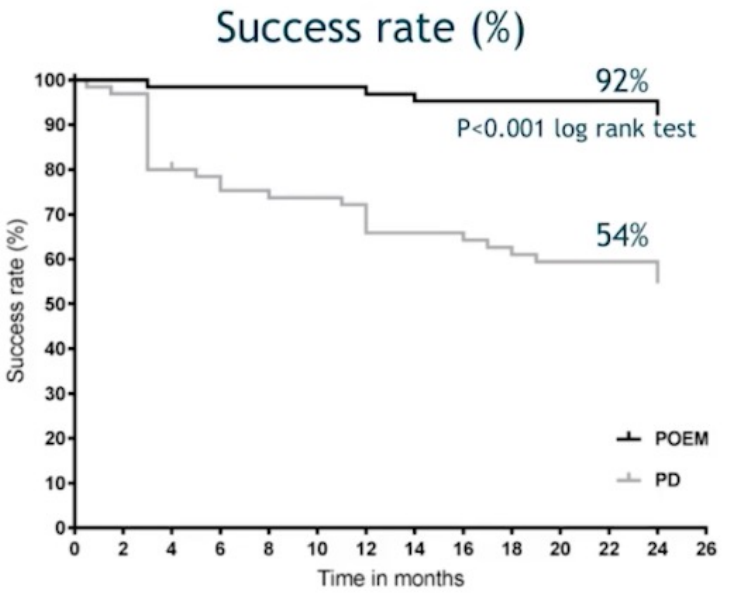
| Study | City, country | Number of patients | Mean age in years (range) | Mean time in minutes (range) | Mean myotomy length in cm (range) | Mean follow-up months | Efficacy (%) | Complications—total reported/requiring intervention (%) |
|---|---|---|---|---|---|---|---|---|
| Onimaru *et al.* (2015)[164] | Yokohama, Japan | 10 | 52 (31–76) | 118.2 (60–180) | 12.4 (7–19) | 18.3 | 100 | 0/0 |
| Vigneswaran *et al.* (2014)[134] | Chicago, USA | 5 | 69.6 (–) | 139.0 (–) | 9 (–) | 4.94 | 100 | 1/1 (20/20) |
| Zhou *et al.* (2013)[135] | Shanghai, China | 12 | 51.2 (32–75) | 36.4 (30–60) | 10.1 (8–13) | 10.4 | 91.7 | –/3 (–/25) |

Abbreviation: –, data not reported.

Bechara et al, Nat rev Gastroenterol 2015

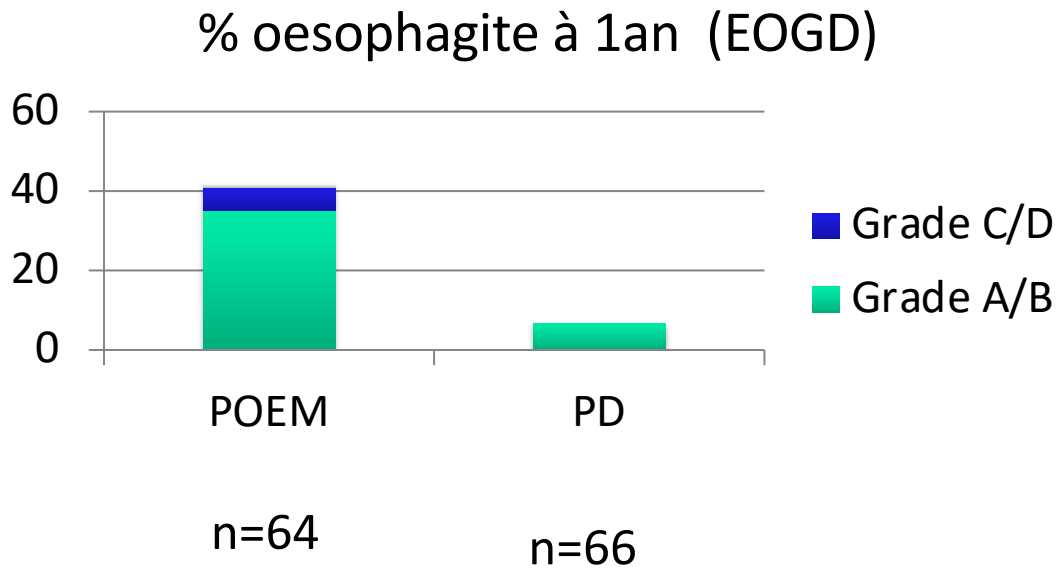
# POEM: en 1ère intention achalasie I et II ?

# Résultats POEM: POEMA Trial




2 SAEs in PD group
none in POEM group

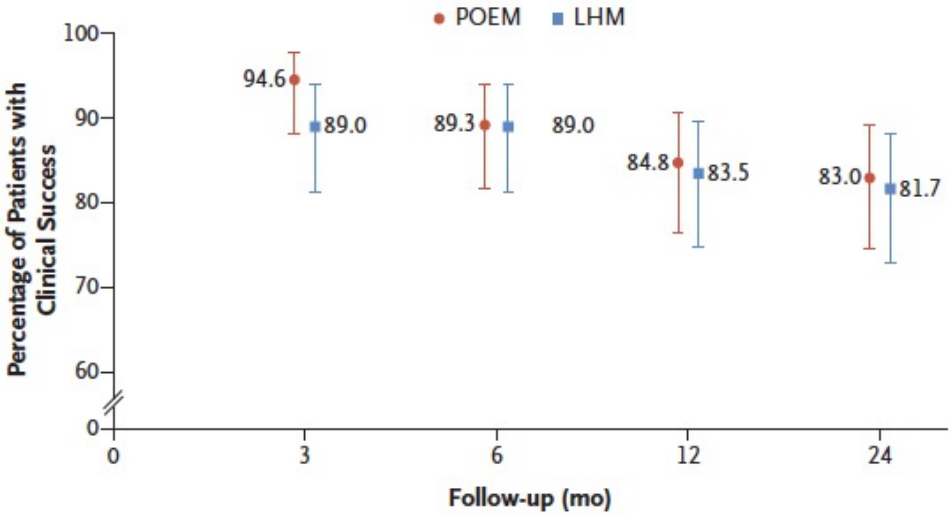
## PD vs POEM en 1ère intention




Pounds, JAMA 2019

# Résultats POEM: POEM vs Heller

Succès clinique à 2 ans




**Efficacité POEM non inférieure LHM à 2ans**

Werner, NEJM 2019

# Résultats POEM: POEM vs Heller

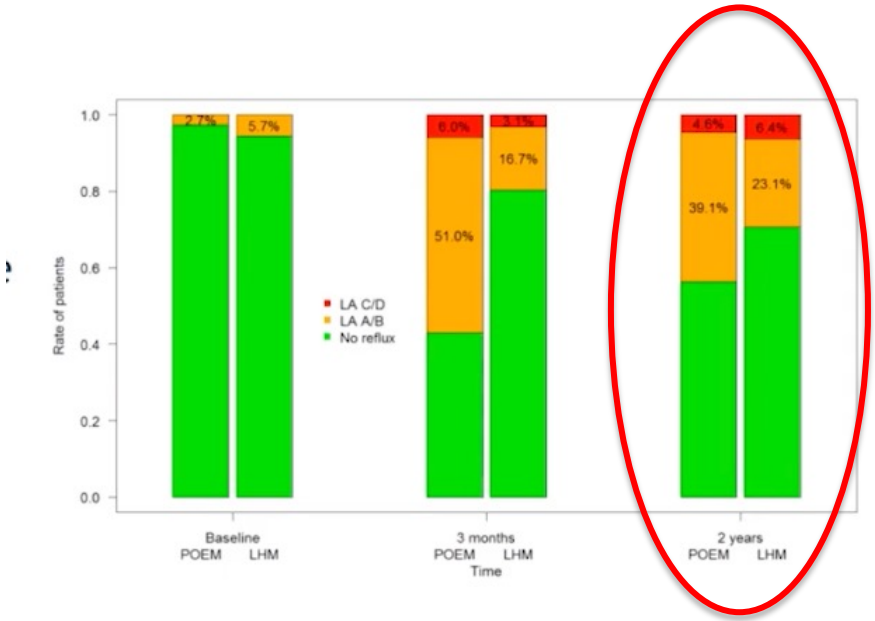
## Reflux gastro-oesophagien

Endoscopie: oesophagite peptique

- Los Angeles A-D à 3 mois p<0.001
- Los Angeles A-D à 2 ans p=0.086
- Los Angeles C/D faible et stable

pHmétrie 24h (AET>4.5%) à 2 ans

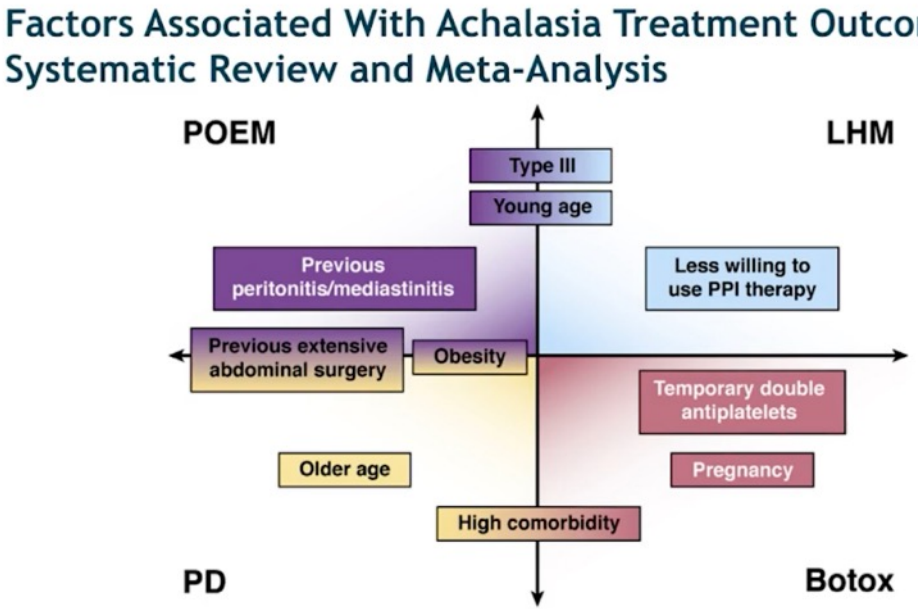
- POEM: 30.0% (21/70)
- LHM: 30.3% (17/56)




**Taux de reflux équivalent à 2 ans**

Werner, NEJM 2019

# Achalasie: quel traitement ?




Choix selon

- Caractéristiques de la maladie
- Caractéristiques du patient
- Préférences du patient

Oude Nijhuis, CGH 2019

# Achalasie: POEM – LHM: 1 - 0

- En 10 ans, véritable place dans l'arsenal thérapeutique de l'achalasie
- Option supplémentaire
- Surveillance reflux +++

**Endoscopic management of gastrointestinal motility disorders – part 1: European Society of Gastrointestinal Endoscopy (ESGE) Guideline**

Weusten Bas, Endoscopy, 2020

ESGE