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Imágenes del trimestre
Peroral Endoscopic Miotomy (POEM)

Miotomia Endoscópica Peroral (POEM)

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Introduction

In 2010, Inoue et al.[1] reported 17 cases of oral endoscopic myotomy following the creation of submucosal esophageal tunnel for treatment of achalasia, introducing the term POEM. This technique is based on the work published by Pasricha et al in 2007, carried out in experimental animals where the creation of a third space for the endoscopist is described, by the dissection of a submucosal tunnel in the esophagus, to access the circular muscular layer.[2] Since then, the technique has aroused great interest and has been extensively reviewed in the literature. To date, more than 2000 cases have been carried out worldwide. Although long-term follow-up is not yet available, the results look promising.[3] This technique reproduces endoscopically the principles of laparoscopic Heller myotomy which has been considered as the best and most efficient therapeutic option in achalasia.[4]

Technique Steps. 1. Submucosal injection 2. Incision 3. Submucosal tunnel opening 4. Gastric esophagus junction identification 5. Myotomy. 6. Irrigation of the tunnel with gentamicin solution. 7. Confirmation 8. Close the defect 9. Start feeding.

Introducción

En el año 2010 Inoue y col.[1] reportaron 17 casos de miotomía endoscópica per oral previa creación de túnel submucoso esofágico, para tratamiento de acalasia, introduciendo el termino POEM. Esta técnica está basada en el trabajo publicado por Pasricha y col en 2007, realizado en animales de experimentación donde se describe la creación de un tercer espacio para el endoscopista, mediante la disección de un túnel submucoso en esófago, para acceder a la capa muscular circular.[2]

Desde entonces, la técnica ha despertado gran interés y ha sido ampliamente reseñada en la literatura. Hasta la fecha, se han realizado más de 2000 casos en el mundo. Aunque aún no se dispone de seguimiento a largo plazo, los resultados lucen prometedores.[3] Esta técnica reproduce por vía endoscópica, los principios de la miotomía de Heller laparoscópica que ha sido considerada como la mejor y más eficiente opción terapéutica en acalasia.[4]

Pasos de la Técnica. 1. Inyección submucosa 2. Incisión 3. Apertura de túnel submucoso 4. Identificación de unión esófago gástrica 5. Miotomía. 6. Irrigación del túnel con solución de gentamicina. 7. Confirmación 8. Cierre del defecto 9. Inicio de alimentación.

Referencias Bibliográficas

1. Inoue H, Minami H, Kobayashi Y, et al. Peroral endoscopic myotomy (POEMfor esophageal achalasia. Endoscopy 2010;42:265-71.
2. Pasricha PJ, Hawari R, Ahmed I, et al. Submucosal endoscopic esophagealmyotomy: a novel experimental approach for the treatment of achalasia.Endoscopy. 2007;39(9):761–764.
3. Stavropoulos SN, Modayil RJ, Friedel D, et al. The International. Per Oral Endoscopic Myotomy Survey (IPOEMS): a snapshot of the global POEM experience. SurgEndosc. 2013;27:3322-3338.
4. Campos GM, Vittinghoff E, Rabl C, et al. Endoscopic and surgical treatmentsforachalasia: a systematicreviewand meta-analysis.AnnSurg.2009;249(1):45–57.

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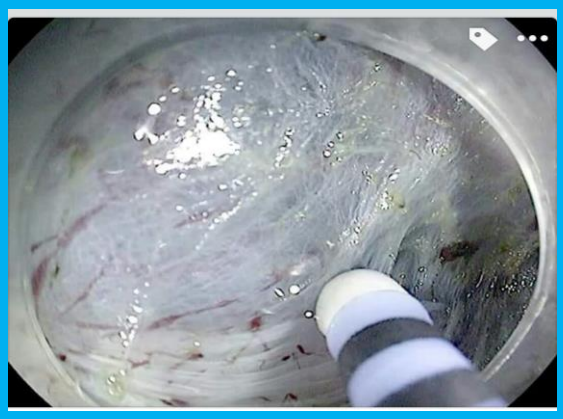
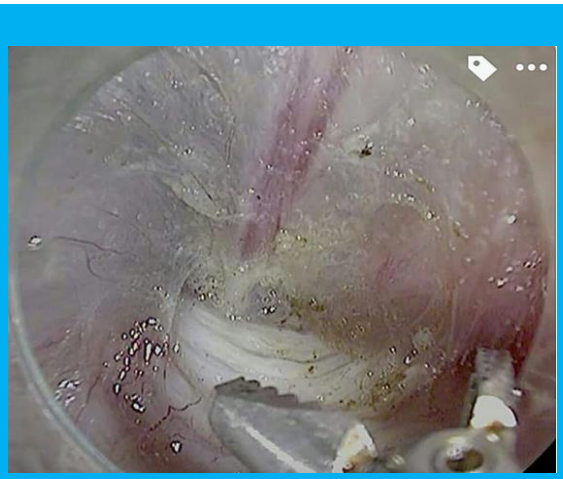
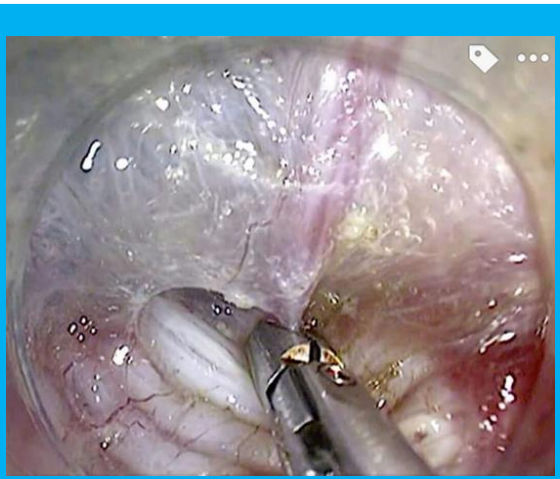


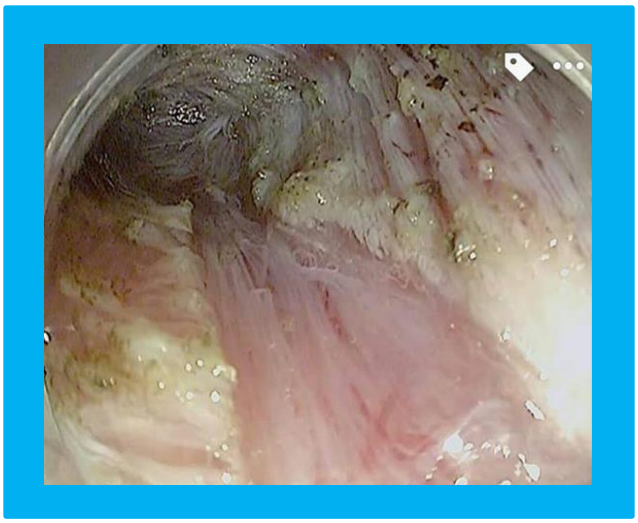
Submucosal injection. Incision



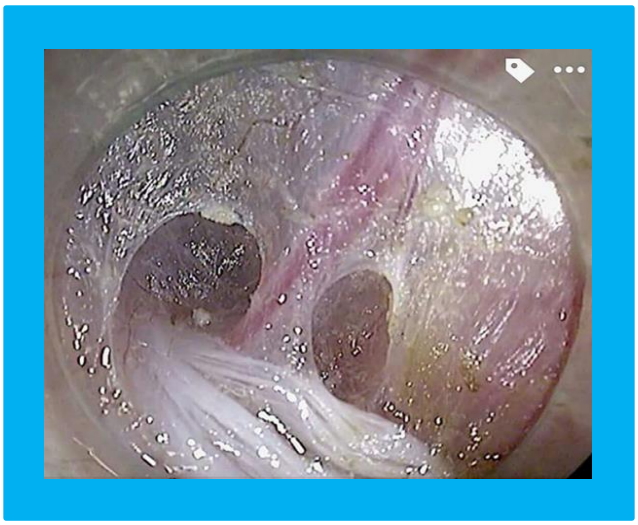
Care must be taken to coagulate the vessel close to the muscle avoiding submucosa and mucosa termal injury. Idemnity of these last two layers will guarantee adequate tunnel closure.



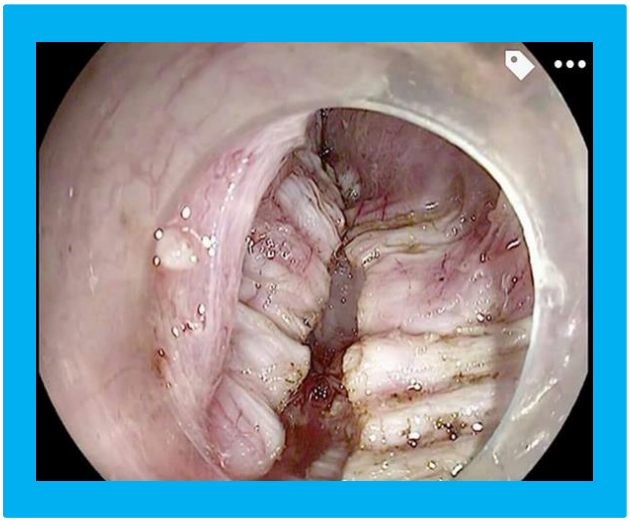
CoaGrasper endoscopic fórceps is used for hemostasis (soft coagulation 80 watts).



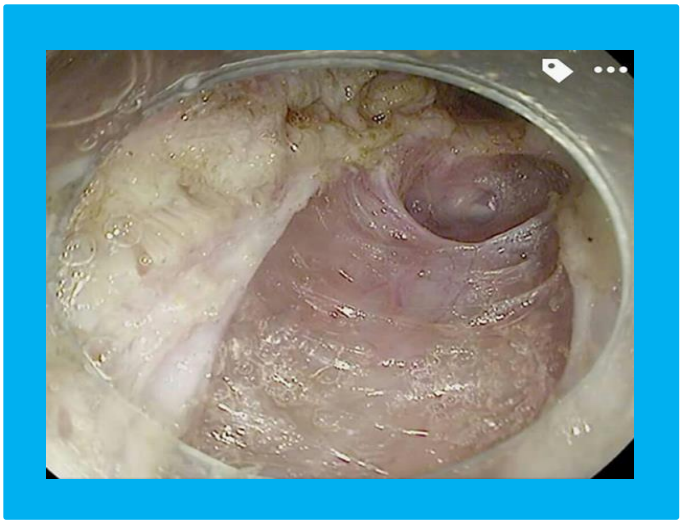
Preserveing the longitudinal muscle layer probably helps to prevent gastro esophageal reflux after POEM.



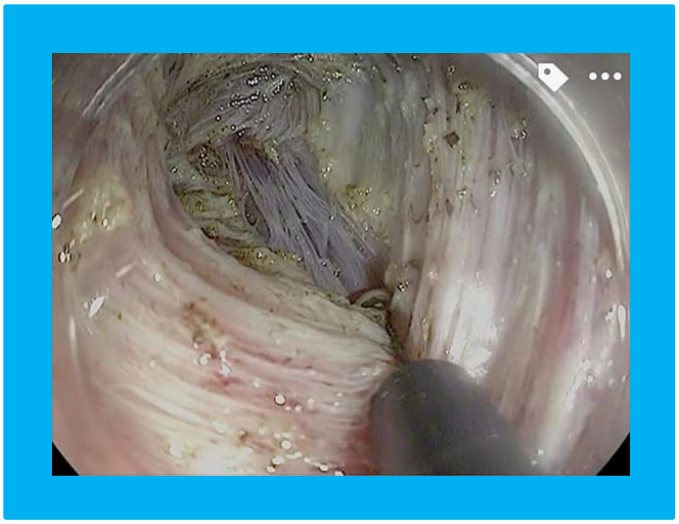
At the gastroesophageal junction bigger vessels are frecuently found. Both sides dissection alows easier hemostasis.



Carefull miotomy must guarantee to cut every circular muscle fiber. Very strict hemostasis is also paramount.



In patients with previous failed surgical miotomy (Heller´s Surgery) a full thinkness miotomy is performed with POEM. Gastric serosa and esophageal adventicia is usually recognized.



In patients without previous treatment or with previous ballon dilation, a selective circular muscle layer miotomy is intended.

Submucosal tunnel dissection over a fibrosis area in patient with a previous failed surgical (Heller´s) miotomy.

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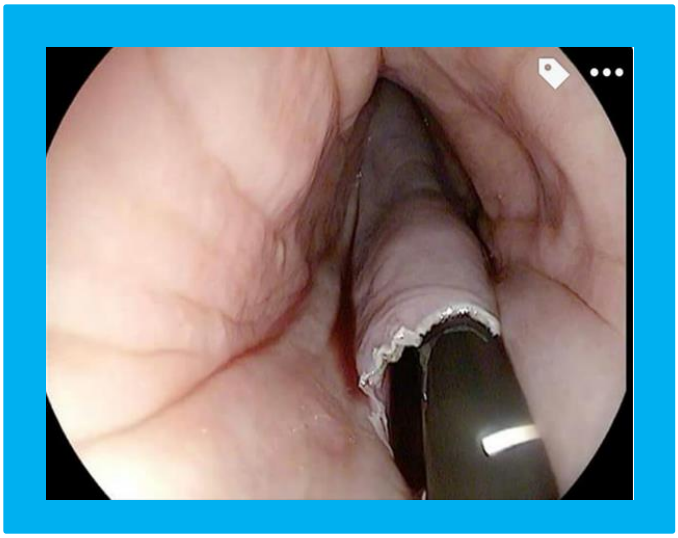
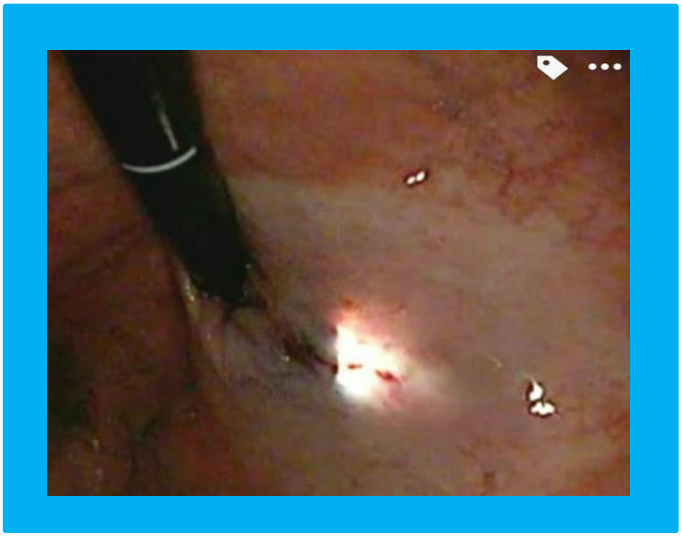
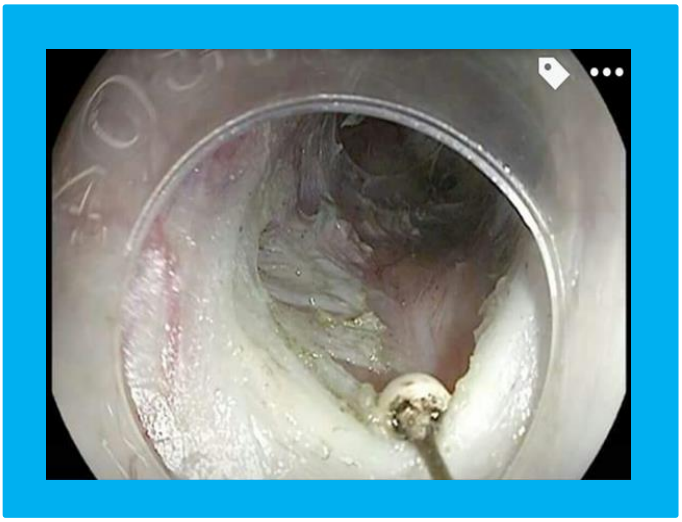


In patients with a tortous esophagus the “two peroral endoscope technique” is highly recommended. The “operator endoscope” enters the tunnel and its tip is placed at the most distal end of the tunnel. A second ultra thin “observator” endoscope is advanced to the stomach and retroflexed.



If transilumination from “operator” endoscope is clearly seen from the stomach with the “observator” endoscope in retroflex view, adequate tunnel length and dissection are guaranteed.



Selective circular esophageal muscular layer miotomy in achalasia.

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