

POEM in difficult situations - Sigmoid esophagus, post Hellers, post dilation

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Peroral endoscopic myotomy (POEM) has become a widely accepted strategy for the treatment of esophageal achalasia and other various esophageal motility disorders during the past 5 years. Its indication and short-term efficacy have been explored by several large cohorts.

The sigmoid-shaped esophagus is considered to be a difficult situation to manage, in which the esophageal lumen is significantly dilated, swerved, and rotated. In such a tortuous megaesophagus, it may easy to be lost the right direction in the tunnel during the procedure. Thus, during submucosaltunneling, the dissection plane should be always maintained to be perpendicular to the circular muscular layer in order to avoid losing the direction; repeatedly pulling the scope out of the tunnel to confirm the direction is alsorecommended. The dissection plane should also be located nearly on the surface of the muscularis and the repeated injection of saline should be performed at any moment that the dissection plane becomes unclear to avoid mucosalinjury.

Previous surgery of the cardia, such as Heller myotomy and previous POEM, brings challenges to POEM by causing fibrosis and altered anatomy. In such situation, the re-myotomy often can be successfully completed without significant difficulty when we place the submucosal tunnel in an unscarred area always on the opposite side of the earlier myotomy site. Prior botulinum toxin injections and even earlier balloon ang stent dilations may also lead to substantial fibrosis of the submucosal planes, however, these interventions do not seem to contribute to increased adverse intraoperative or postoperative clinical outcomes.

In conclusion, submucosaltunneling in difficult situations may be more challenging and time-consuming, but often do not prevent successful POEM.