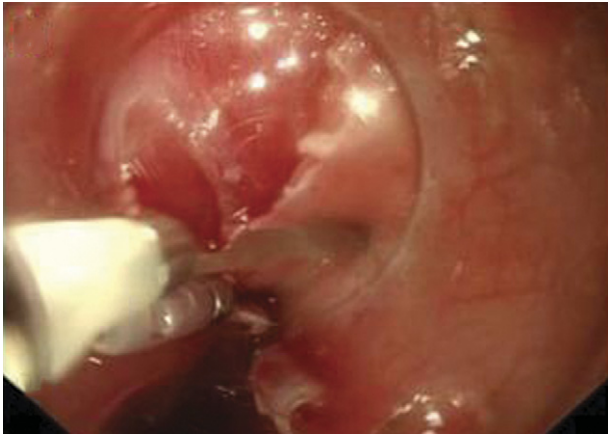


FOCUS ON. . .



ORIGINAL ARTICLE

Peroral endoscopic myotomy for treatment of achalasia: from bench to bedside (with video)

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Peroral endoscopic myotomy (POEM) is a novel approach to performing esophageal myotomy through a long submucosal tunnel. This study aimed to investigate the feasibility and safety of POEM for treatment of achalasia. This was a preclinical animal study and prospective clinical study including consecutive patients diagnosed with achalasia upon high-resolution manometry.

POEM was standardized for preclinical and clinical studies. After submucosal injection, a mucosal incision was made 15 cm above the gastroesophageal junction (GEJ). A long submucosal tunnel was created to extend below the GEJ. The endoscopic myotomy started 10 cm above and extended 2 cm below the GEJ. We first conducted a preclinical animal study to confirm the safety of POEM. POEM was then performed for the treatment of achalasia in humans. Seven 30-kg porcine models received POEM in the survival study. All of the pigs survived except 1, which sustained pneumomediastinum. POEM was performed for the treatment of achalasia in 16 patients. The mean operative time was 117.0 ± 34.1 minutes. All patients tolerated food on day 2 with a contrast study confirming no leakage. The median follow-up was 176.5 days (range 98-230 days). The postoperative basal lower esophageal sphincter pressure was significantly reduced (mean reduction, 13.9 ± 14.5 mm Hg; $P = .005$) and 4-second integrated relaxation pressure of the GEJ (mean reduction, 10.1 ± 7.4 mm Hg; $P = .001$). Of these patients, 58.3% had a normalized 4-second integrated relaxation pressure, whereas 20% had excessive esophageal acid exposure after the procedure. There was a significant improvement in quality of life 6 months after POEM measured by the Short Form-36 questionnaire. Dr Chiu and colleagues concluded that POEM is a feasible, safe, and effective treatment for achalasia.

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ORIGINAL ARTICLE

Adenoma detection rate is necessary but insufficient for distinguishing high versus low endoscopist performance

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Endoscopist quality is benchmarked by the adenoma detection rate (ADR)—the proportion of cases with 1 or more adenomas removed. However, the ADR rewards the same credit for 1 versus more than 1 adenoma. The authors evaluated whether 2 endoscopist groups could have a similar ADR but detect significantly different total adenomas. The authors retrospectively measured the ADR and multiple measures of total adenoma yield, including a metric called ADR-Plus, the mean number of incremental adenomas after the first. They plotted ADR versus ADR-Plus to create 4 adenoma detection patterns: (1) optimal (\uparrow ADR/ \uparrow ADR-Plus); (2) one and done (\uparrow ADR/ \downarrow ADR-Plus); (3) all or none (\downarrow ADR/ \uparrow ADR-Plus); and (4) none and done (\downarrow ADR/ \downarrow ADR-Plus). This study took place in a tertiary-care teaching hospital and 3 nonteaching facilities servicing the same patient pool and included 3318 VA patients who underwent screening between 2005 and 2009. The ADR was 28.8% and 25.7% in the teaching ($n = 1218$) and nonteaching groups ($n = 2100$), respectively ($P = .052$). Although ADRs were relatively similar, the teaching site achieved 23.5%, 28.7%, and 29.5% higher mean total adenomas, advanced adenomas, and ADR-Plus versus nonteaching sites ($P < .001$). By coupling ADR with ADR-Plus, the authors identified more teaching endoscopists as optimal (57.1% vs 8.3%; $P = .02$), and more nonteaching endoscopists in the none and done category (42% vs 0%; $P = .047$). Dr Wang and colleagues found minimal ADR differences between the 2 endoscopist groups, but substantial differences in total adenomas; the ADR missed this difference. Coupling the ADR with other total adenoma metrics (eg, ADR-Plus) provides a more comprehensive assessment of adenoma clearance; implementing both would better distinguish high- from low-performing endoscopists.

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