

Supplementary Material

Survey on Clinical Practice for Esophageal High-resolution Manometry

Thank you for spending your time in responding to this nationwide survey developed by Dysphagia Research Group Under the Korean Society of Neurogastroenterology and Motility. The purpose of this survey is to understand current practice patterns on esophageal high-resolution manometry (HRM) and to promote the development of standardized study protocol. The results of this survey will be reproduced and used for research purpose only. Please respond to each question and provide a detailed description when necessary.

Q1. Institution setup and equipment

Name of institution: _____

1-1) Hospital setting: primary care hospital secondary care hospital tertiary care hospital

1-2) Equipment used for HRM: Given Imaging system Sandhill Scientific Medical Measurements Systems

Q2. Study indications (multiple answers)

- dysphagia heartburn regurgitation
 refractory gastroesophageal reflux disease extraesophageal symptoms
 noncardiac chest pain belching before anti-reflux surgery
 before bariatric surgery others:

Q3. Symptom questionnaires

3-1) Do you utilize specific survey or questionnaires prior to HRM? yes no (go to Q4)

3-2) Select the category of questionnaires and write their title (eg, GERD-Q).

- reflux questionnaire:
 dysphagia questionnaire:
 quality of life questionnaire:
 others:

Q4. Study protocol and data reporting

4-1) Fasting before HRM: 6 hours before midnight others:

4-2) Methods for local pharyngeal anesthesia: lidocaine jelly others:

4-3) Do you recommend withdrawal of usual medication that can affect esophageal motility prior to HRM? yes no (go to Q4-4)

4-3-1) Select the medication that should be withdrawn before HRM (multiple answers).

- antispasmodics calcium channel blockers nitroglycerin muscle relaxant opioids others:

4-3-2) Duration of withdrawal (days or weeks): _____

4-4) Study position (multiple answers)

- supine seated upright semi-recumbent position (head elevation for 30°) Trendelenburg position others:

4-5) Swallow protocols

4-5-1) Consistency (multiple answers)

- wet (eg, saline, half saline, water):
 viscous (eg, apple sauce):
 solid (eg, bread):
 others:

4-5-2) Volume of each swallow: _____ mL

4-5-3) Total number of swallows for each consistency: _____ times

4-5-4) Interval between swallows: _____ seconds

4-6) Do you perform the provocation test? yes no (go to Q4-8)

4-6-1) To whom should the provocation test be performed? all patients as indicated

4-6-2) Which provocation test do you conduct? (multiple answers)

- multiple rapid swallow multiple drinking challenge standardized meal others:

4-7) Reference pressure: atmospheric pressure gastric pressure others:

4-8) What parameters do you analyze and report? (multiple answers)

- LES length resting LES pressure EGJ morphology EGJ-CI IRP
 DCI distal latency CFV bolus transit intrabolus pressure
 transition zone defect UES measurement pharyngeal swallow others:

LES, lower esophageal sphincter; EGJ, esophagogastric junction; EGJ-CI, EGJ-contractile integral; IRP, integrated relaxation pressure; DCI, distal contractile integral; CFV, contractile front velocity; UES, upper esophageal sphincter.

This is the end of the survey. Thank you for responding.