

Contents

Motor function of the foregut

Endoscopic morphology of the esophagogastric junction <i>C.J. Lightdale</i>	3
Where is the gastroesophageal pH step-up under fasting conditions and following a meal? <i>J.E. Pandolfino</i>	7
Where, and what, are the three (or four) components of the distal esophageal high-pressure zone <i>L. Miller</i>	9
Intra-gastric micromanometry in the human being <i>J.-M. Collard, R. Romagnoli</i>	17
How should “ineffective esophageal motility” be defined? <i>M. Ribolsi, R. Tutuian</i>	25
Is there a relationship between the proportion of longitudinal or circular muscle and the motility of the esophageal body? <i>I. Sarosiek, M. Majewski, J. Sarosiek</i>	28
Among the available gastrointestinal function tests, which one provides the most relevant information on motility of the esophagus? <i>G.W. Falk</i>	32
How can complete relaxation of the lower esophageal sphincter in patients with typical achalasia be explained? <i>J.E. Richter</i>	34
Comparison of medical, endoscopic, and surgical therapy for esophageal achalasia <i>L. Bonavina, D. Baldoli, L. Laface</i>	37
Esophageal function testing in achalasia patients <i>O.B. Lao, B.K. Oelschlager</i>	42
What are the absolute manometric criteria for making the diagnosis of diffuse esophageal spasm? <i>E.-H. Metman, L. Negreanu, B. Godart</i>	47
What criteria differentiate diffuse esophageal spasm from nutcracker esophagus? <i>V. Nilton Felix</i>	50

Can sensory function of the esophageal body be predicted by motility pattern? <i>R.P. Tatum</i>	53
What is the role of drug treatment in the management of esophageal pain? <i>C. Scarpignato, S. Contini</i>	57
Onset and development of acid induced esophageal inflammation <i>P. Biancani, K.M. Harnett</i>	67
Esophageal motility disorders after esophageal banding <i>O.B. Lao, B.K. Oelschlager</i>	81

Sensory function of the foregut

Sensory structure responsible for sensing pain in the esophagus: do we know what it looks like? <i>W.L. Neuhuber</i>	89
What are the functional characteristics of esophageal sensory nociceptors? <i>K.M. Harnett, P. Biancani</i>	93
Neonatal development of protective esophageal reflexes <i>S.R. Jadcherla</i>	99
Descending control: does it influence visceral pain? <i>A.M. Drewes</i>	103
Can esophagus sense mechanical, thermal and chemical stimuli? <i>H. Gregersen</i>	110
Acid sensitivity and esophageal hypersensitivity; is it peripheral or central? <i>A. Sharma, Q. Aziz</i>	115
What is the role of mucosal barrier in acid-induced pain? <i>R.C. Orlando</i>	119
Can non-acid reflux cause esophageal symptoms? <i>F. Fornari, D. Sifrim</i>	122
Targeting GABA _B and glutamate receptors: is it the way to go for treating esophageal symptoms? <i>A. Lehmann</i>	124
Achalasia and esophageal pain: what is the prevalence and possible mechanism? <i>A.M. Drewes</i>	130
Mechanisms of reflux-induced signs and symptoms in non-acid reflux <i>F. Pace, S. Pallotta, P. Molteni</i>	136

Globus - what causes that sensation?
I.J. Cook 139

Reflux induced esophageal distension: does it cause heartburn/pain?
N.A. Tipnis 143

Translating esophageal mechanics and sensation into clinical applications
H. Gregersen 147

Brain - Foregut connections

What are the effects and implications of electrical stimulation of the esophagus
on cerebral evoked potentials?
A.R. Hobson 153

How can stresses and strains at the receptor sites be measured?
H. Gregersen 156

What is the relationship between cerebral neuronal activation and responses
and mechanical behaviour of the pharynx and esophagus?
A. Schindler 160

How does the larynx protect itself from acid regurgitation?
E. Brossard 167

Do we know enough about the local reflexive control
of upper esophageal sphincter function to target pharmacotherapy
for extraesophageal complications of gastroesophageal reflux disease?
A.M. Drewes 169

What are the anatomical elements contributing to the structure
of the upper esophageal sphincter?
R. Goyal 175

What is the significance of a cricopharyngeal bar and is it synonymous
with upper esophageal sphincter achalasia?
R.O. Dantas, R.A. Cassiani 179

Do we have valid and reliable means of quantifying severity
of pharyngeal dysphagia? Move toward standardization
B. Martin-Harris 181

Is it possible to establish a protocol for video fluoroscopic evaluation
of swallowing?
A.C. Wuttge-Hannig, C.E.M. Hannig 189

What can we expect from high resolution manometry? <i>G. Hebbard</i>	194
Can activation of peripheral sensory nerves be exploited to treat oropharyngeal dysphagia? <i>I.J. Cook</i>	198

Imaging techniques in the diagnosis of diseases of the foregut

What is the role of radiology in the detection and evaluation of esophageal stenosis, diverticula and hiatal hernia <i>F.I. Habib, L. Caneloro</i>	207
The value of esophageal capsule endoscopy in detection of esophageal mucosal abnormalities <i>R. Eliakim</i>	212
What can be expected from 3-D dimensional endoscopic ultrasonography in staging of esophageal cancer? <i>M. Abu-Suboh Abadia, J. Dot Bach, J. Armengol-Miro</i>	215
Is videofluoroscopy the best technique for evaluation of dysphagia? <i>P. Pokieser, M. Scharitzer</i>	219
Bolus transit and dysphagia: what can be expected from combined manometric and videofluoroscopic study of swallow? <i>P. Clavé</i>	223
What is the predictive role of the degree of esophageal emptying by timed barium swallows of patients with achalasia? <i>E.-H. Metman, L. Picon, L. Negreanu</i>	230
What are the current indications of radiology in patients with gastroesophageal reflux disease? <i>F.I. Habib</i>	233
Are there specific indications for esophageal scintigraphy in gastroesophageal reflux disease? <i>K.G. Chaudhuri, J.K. Chaudhuri, D.N. Chaudhuri, S. Fink, T.K. Chaudhuri, T.K. Chaudhuri</i>	234
What is the role of esophageal intraluminal impedance in the evaluation of patients with gastroesophageal reflux with persistent symptoms on proton pump inhibitor? <i>D. Pohl, R. Tutuian</i>	235
Can intraluminal impedance measurement be used as a screening test for Barrett's esophagus? <i>F. Fornari, D. Sifrim</i>	239

What is the role of radiology in patients with chest pain?
C.M.E. Hannig, A.C. Wuttge-Hannig 240

Is there a reliable correlation between the radiographic and manometric findings for diagnosing esophageal motor disorders?
K.R. DeVault 243

What can be expected from the four-electrode impedance planimetry in the evaluation of esophageal wall tension and sensitivity in patients with chest pain?
H. Gregersen 246

What information can be expected from the neurophysiologic techniques (magnetoencephalography, positron emission tomography scan and functional magnetic resonance imaging) in the evaluation of patients with functional disorders of the esophagus?
A.R. Hobson 253

How can we use cortical evoked potentials to distinguish patients with esophageal hypersensitivity?
A.R. Hobson 256

Pathophysiology and controversies in gastroesophageal reflux disease

What is the prevalence of gastroesophageal reflux disease in Asian countries?
T.K. Cheung, B.C.Y. Wong 261

Pathogenesis of eosinophilic esophagitis
K. Mönkemüller, H. Neumann, P. Malfertheiner 264

Eosinophilic esophagitis in adults
A. Straumann 268

What is the distribution of values for post-prandial and nocturnal gastric acidity in gastroesophageal reflux disease with erosive esophagitis and no esophagitis?
S. Emerenziani, M. Cicala 272

In patients with heartburn, can a correlation with esophageal acid perfusion be demonstrated?
R.C. Orlando 276

What are the causes of the antireflux effects of the Stretta procedure?
G. Triadafilopoulos 280

What is the value of intraluminal manometry?
M. Fox 284

Why does hiatal hernia rarely exist with achalasia?
V. Nilton Felix 290

What are the mechanisms of the association between <i>Helicobacter pylori</i> infection and gastroesophageal reflux disease? <i>I. Sarosiek, M. Majewski, J. Sarosiek</i>	294
What is the role of <i>Helicobacter pylori</i> infection in the development of carditis? <i>R. Malekzadeh, S. Nasser-Moghaddam</i>	298
Future antireflux therapy based on drugs targeting the lower esophageal sphincter <i>R. Penagini, A. Grigolon, C. Caparello</i>	301
Does multiple rapid swallowing test improve the assessment of lower esophageal sphincter function? <i>R. Penagini, I. Bravi, P Cantù</i>	305
What are the drawbacks of the transnasal or transoral Bravo™ pH monitoring system? <i>J.E. Pandolfino</i>	308
Do physiological interactions between the esophagus and stomach lay the foundation for overlap in disease? <i>F. Fornari, D. Sifrim</i>	311

Controversies in Barrett's esophagus and Barrett's cancer

Pathologic findings in rat models of reflux-induced esophageal injury <i>E. Montgomery</i>	317
Procarcinogenic signaling in Barrett's esophagus: do animals copy us? An overview of <i>in vivo</i> models <i>C. DeMars, N. Buttar</i>	321
Lessons from animal models: prevention of esophageal adenocarcinogenesis <i>K. Miwa</i>	324
Synergistic interaction of low pH and bile acids <i>K. Dvorak, H.S. Garewal</i>	328
Induction of Barrett's metaplasia by acid and bile acid <i>N.J. Clemons, R. Fitzgerald</i>	332
Immunohistochemistry in the study of columnar metaplasia <i>R.H. Riddell</i>	339
Microarray technology in columnar metaplasia and carcinogenesis; excitement <i>versus</i> reality <i>E. Montgomery</i>	344

What are the minimal criteria for the diagnosis of low-grade dysplasia in Barrett’s mucosa?
E. Montgomery 347

What are the minimal criteria for the diagnosis of high-grade dysplasia in Barrett’s mucosa?
H.D. Appelman 351

What is the reproductibility of diagnosis of Barrett metaplasia /dysplasia in images submitted to a panel of pathologists?
G. Chejfec, S. Sontag, T. Schnell 355

How should acid suppression be done in the management of Barrett’s esophagus?
C. Scarpignato, S. Contini 360

Does normalization of esophageal pH with proton pump inhibitors induce regression of metaplasia and reduce the risk of adenocarcinoma?
V. Mokkala, C.J. DeMars, N. Buttar 375

What information on the potential for malignant progression in Barrett’s metaplasia can be derived from biomarkers of DNA damage?
A.G. Casson 378

Are genetic alterations observed in non-dysplastic Barrett’s epithelium?
H. Garewal, K. Dvorak 384

Are there specific biomarkers of genetic damage that correlate with different grades of dysplasia?
P. Lao-Sirieix, R. Fitzgerald 387

What is the best way to measure the length of Barrett’s metaplasia?
R.K.H. Wong 392

Detection of high-grade dysplasia in Barrett’s esophagus using narrow band imaging
G.W. Falk 394

Epithelial types in columnar metaplasia in magnification and narrow band imaging
G. Triadafilopoulos 397

How might gastroesophageal reflux disease promote carcinogenesis in Barrett’s esophagus?
K. Dvorak, H. Garewal 401

Is chemoprevention of Barrett’s esophagus a feasible strategy?
S.J. Sontag 405

What is the outcome of radiofrequency ablation of Barrett’s esophagus?
G. Triadafilopoulos 409

Is it unequivocally necessary to combine laser ablation with antireflux surgery? <i>C.J. Lightdale</i>	413
High rate of lymph node metastasis in submucosal Barrett's cancer. Consequences for choice of therapy <i>A.H. Hölscher, E. Bollschweiler</i>	415
Vagus-sparing esophagectomy and antrally-innervated stomach <i>J.M. Collard, R. Romagnoli, L. Goncette, C. Gutschow</i>	418
Current status and future directions for tumor vaccines in the clinical setting <i>M. Gibson</i>	424

Esophageal dilation in esophageal strictures

The Lausanne experience with treatment for benign esophageal stenosis using the Savary technique <i>E. Piotet, A. Escher, P. Monnier</i>	435
A gastroenterologist's approach for dilating benign esophageal strictures <i>R.K.H. Wong</i>	442
Endoscopic lumen restoration for complete pharyngoesophageal obstruction following chemoradiation therapy for head and neck cancer <i>H.W. Boyce</i>	447

Zenker's diverticula

Zenker's diverticulum: endoscopic <i>versus</i> open approach <i>J.-M. Collard, L. Goncette</i>	453
Open <i>versus</i> endosurgical approach for Zenker diverticulum: the critical role of cricopharyngeal myotomy <i>L. Bonavina, D. Bona, G. Saino</i>	460