

Contents

Part I Introduction	
1	History of ESD 3 Kazuki Sumiyama and Hisao Tajiri
Part II Indications	
2	Indications of ESD in the Upper Gastrointestinal Tract 11 Hang Lak Lee and Sang Yong Seol
3	Indication for Colorectal ESD 19 Yutaka Saito
Part III Pre-procedure Imaging	
4	Role of EUS on Preoperative Staging of Gastric Cancer for ESD 27 Mitsuhiro Kida
5	Advanced Endoscopic Imaging in the Upper Gastrointestinal Tract 41 Manuel Berzosa and Michael B. Wallace
6	Advanced Endoscopic Imaging in the Lower GI Tract 51 Rajvinder Singh, Anja Landowski, and Mahesh Jayanna
Part IV Procedure	
7	Injection Material for ESD: Eastern Perspective 61 Keiko Niimi, Mitsuhiro Fujishiro, and Kazuhiko Koike
8	Submucosal Fluid Cushion Injection Fluid: Western Perspective 67 Christopher J. Gostout and Ray I. Sarmiento
9	Electrocautery for ESD 75 Norio Fukami and Alissa Bults

10 Endoscopic Submucosal Dissection for Superficial Esophageal Cancer	85
Tsuneo Oyama	
11 ESD Technique: Stomach	95
Hiroyuki Ono	
12 ESD for Colorectal Lesions	103
Naohisa Yahagi	
13 How to Conquer Difficult ESD: Duodenum, Fibrosis, and More	115
Hironori Yamamoto, Yoshikazu Hayashi, and Keijiro Sunada	

Part V Peri-procedural Considerations

14 Prevention of Stricture Formation After Esophageal Endoscopic Submucosal Dissection	131
Manabu Takeuchi	
15 Regenerative Medicine for Stricture Management: What does the Future Hold?	141
Takeshi Ohki	
16 Prevention, Identification, and Treatment of Hemorrhage	147
Kohei Takizawa	
17 Management of Gastrointestinal EMR and ESD Perforation: From Lab to Practice	161
Selvi Thirumurthi and Gottumukkala S. Raju	
18 Identification, Treatment, and Prevention of Complications: Perforation in the Upper Gastrointestinal Tract	177
Shigetaka Yoshinaga, Satoru Nonaka, and Ichiro Oda	
19 Prevention, Identification, and Treatment of Perforation in the Lower Gastrointestinal Tract	185
Takashi Toyonaga	
20 Post-resection Surveillance	195
Jun-Hyung Cho, Bong Min Ko, and Joo Young Cho	

Part VI ESD Expansion

21 Submucosal Endoscopy: From ESD to POEM and POET	205
Haruhiro Inoue, Esperanza Grace Santi, Haruo Ikeda, Manabu Onimaru, and Hiroaki Itoh	

- 22 ESD Expansion: NOTES—Eastern Perspective** 213
 Kazuhiro Yasuda, Hidefumi Shiroshita, Masafumi Inomata,
 and Seigo Kitano
- 23 ESD Expansion: NOTES—The Western Perspective** 221
 Chad Kawa and Amitabh Chak

Part VII Dissemination of ESD

- 24 ESD Training in the East**..... 229
 Takuji Gotoda and Peter V. Draganov
- 25 Endoscopic Submucosal Dissection Training
 in Western Countries** 237
 Adolfo Parra-Blanco, Vitor Arantes, Nicolás González,
 Alberto Herreros de Tejada, and Andrés Donoso
- 26 Appendix: Commonly used ESD Knives** 257
 Norio Fukami
- Index**..... 261

Jun-Hyung Cho Digestive Disease Center, Soonchunhyang University Hospital, Seoul, South Korea

Joo Young Cho Digestive Disease Center, Soonchunhyang University Hospital, Seoul, South Korea

Alberto Herreros de Tejada Department of Gastroenterology, IDIPHIM, Puerta de Hierro University Hospital, Universidad Autónoma de Madrid, Madrid, Spain

Andrés Donoso Department of Surgery, School of Medicine, Pontificia Universidad Católica de Chile, Santiago, Chile

Peter V. Draganov Division of Gastroenterology, Hepatology and Nutrition, University of Florida, Gainesville, FL, USA

Norio Fukami Division of Gastroenterology and Hepatology, University of Colorado Anschutz Medical Campus, Aurora, CO, USA

Mitsuhiko Fujishiro Department of Endoscopy and Endoscopic Surgery, Gastroenterology, The University of Tokyo, Tokyo, Japan

Nicolás González Department of Gastroenterology, Faculty of Medicine, Hospital de Clínicas, Montevideo, Uruguay

Christopher J. Gostout Department of Gastroenterology and Hepatology, Mayo Clinic, Rochester, MN, USA

Takuji Gotoda Department of Gastroenterology and Hepatology, Tokyo Medical University, Tokyo, Japan