

# Appendix: Terminology

## Observation Methods

1. White light endoscopy (WLI)
2. Chromoendoscopy (CE)
  - Lugol's staining (squamous epithelial esophagus)
  - Indigo carmine (stomach, small intestine, colon)
  - Crystal violet (colon, irregular or amorphous pit pattern)
3. Narrow band imaging (NBI): specify as below
  - Non-magnifying NBI
  - Magnifying NBI (M-NBI)
4. Magnifying (magnification) endoscopy (M-E)

## Endoscopic Appearance

### 1. Macroscopic appearance

- (a) superficial lesions, type 0
  - polypoid and protruding 0-I
    - pedunculated, 0-Ip
    - sessile, 0-Is
  - flat (non-polypoid and non-excavated) 0-II
    - slightly elevated (elevated), 0-IIa
    - completely flat (flat), 0-IIb
    - slightly depressed (depressed), 0-IIc
  - excavated
    - ulcerated type, 0-III
    - excavated and depressed types, 0-IIc + III, 0-III + IIc

**Advanced carcinoma in Upper GI Tract (GIT):**

- (b) polypoid carcinomas, type 1
- (c) ulcerated carc. sharply demarcated, raised margins, type 2
- (d) ulcerated, infiltrating carc. without definite limits, type 3
- (e) non-ulcerated, diffusely infiltrating carcinomas, type 4

**Macroscopic appearance (adenoma, carcinoma) in Lower GIT**

**Laterally spreading type lesions (LST, d > 10 mm), subtypes:**

- Granular, – homogenous (LST-GH) i.e. 0-IIa
  - mixed nodular (LST-GM), i.e. 0-IIa + Is
  - whole nodular (LST-GN), i.e. 0-Is
- Non-Granular LST (LST-NG)
  - non-granular flat (LST-NGF)
  - pseudodepressed (LST-NGPD)

**2. Chromoendoscopy**

- Lugol-unstained area (squamous epithelial esophagus)
- multiple Lugol-voiding lesions

**3. NBI**

- brownish area

**4. Magnifying endoscopy (M-E), magnifying NBI (M-NBI)****(a) demarcation line****(b) microvascular pattern/architecture (MVP)**

- regular, irregular, absent
- squamous epithelium
  - intrapapillary capillary loop (IPCL) dilatation
  - tortuosity
  - caliber change
  - variety in shape
  - submucosal dendritic (branched) veins
- columnar epithelium
  - collecting venule (CV), submucosal
  - subepithelial capillary network (SECN)
  - irregular microvessel pattern (IMVP) fine network pattern
  - non-network pattern (corkscrew pattern)

**(c) mucosal (micro-)surface pattern / structure**

- regular, irregular, absent
- columnar epithelium
  - crypt opening, pit
  - pit patterns (colorectum)
  - tubular pattern (tubular, villous or ridge type)

- marginal crypt epithelium, white zone (WZ)
- irregular microsurface pattern (IMSP)
- absent microsurface pattern (AMSP)
- white opaque substance (WOS)
- light blue crest (LBC, typical of intestinal metaplasia)

## Subepithelial Lesions

- High-resolution endoscopic ultrasound (hr-EUS, 12–30 MHz), echo layers:
  - ep, epithelial echo of mucosa (1st layer, hyperechoic)
  - lpm, lamina propria of mucosae (2nd layer, hypoechoic)
  - sm, submucosa (3rd layer, hyperechoic, sometimes with upfront echo of mm, muscularis mucosae)
  - pm, proper muscle (4th layer, hypoechoic)
  - ad/ss, adventitia/subserosa
  - correlated with anatomic / histopathologic wall layers
- Layer of origin
  - ep, lpm: adenoma/dysplasia and HGIN/cancer
  - lpm: MALT lymphoma, NET
  - mm: (rarely) GIST, leiomyoma
  - sm: GCT, (NET), lipoma, lymphoma, fibroma, lymphangioma, others
  - pm: GIST, leiomyoma

# Index

## A

Aberrant pancreas, 86  
Abrikosoff tumors, 67  
Acetic acid chromoendoscopy, 152  
Acute perforations, 56  
Adenocarcinoma (AC) of the esophagus, 108, 109  
Adenoma-like lesion or mass (ALM), 296  
Adenomas  
  anal squamous cell lesion 0-IIb-G, 287, 289  
  large rectal LST-G mixed type invading anal channel, 278, 280  
  LST-G whole nodular type (0-Is + Isp), 278, 279  
  LST-NG, 275, 277, 281, 283–285  
  rectal LST-G, 286–288  
  relatively large cecal lesion LST-G whole nodular, 281, 282  
  small lesion 0-IIa + c, 276, 278  
  small lesion 0-Is + 0-IIc, 275, 276  
Adenomatous/hyperplastic mucosal lesions, 32  
Altered pit pattern, 203  
Altered villi, 203  
Ampullary adenomas, 225, 226  
Anal canal, lesions of, 274, 275  
Anal lesions, 275  
Anal neoplasias, 275  
Anechoic, 80  
Angiodysplasia, 186  
Antibiotic prophylaxis, 114  
Atrophic gastritis, 17, 208  
Avascular area (AVA), 126, 128

## B

Barrett's adenocarcinoma, 38, 40  
Barrett's esophagus (BE), 22, 149  
  diagnosis and examination of, 150, 151  
  dysplasia and early cancer  
    early Barrett neoplasia type 0-Is, 160  
    mucosal adenocarcinoma, underwater and acetic acid delineation of, 166, 167  
    with mucosal cancer, 167, 169  
    multifocal Paris 0-Is lesions, 165  
  0-Is + IIa, 163, 164  
  with Paris 0-Is submucosal lesion, 166, 168  
  and submucosal lesion, 165, 166  
  type 0-IIa, 162  
  early neoplasias, endoscopic resection of, 158–160  
  procedure, detection and analysis of, 152–154  
  sm-invasive cancer, endoscopic diagnosis of, 155–158  
Barrett's mucosa, 22  
Bleeding, risk, 57  
Blue Light Imaging (BLI), 4  
Budding sign, 82

## C

Cancerous villi, 196  
*Candida*, 130, 131  
Capillary patterns (CP), 14  
Chromoendoscopy (CE), 122, 195  
  IBD, 295  
  mucosal neoplastic lesions, 4, 6

- Chromosomal instability, 35  
 Chronic ulcerative colitis, 302, 303  
 Classic polypoid adenoma–carcinoma pathway, 31  
 Classic tubular adenoma, 15  
 Cold polypectomy, 231  
 Cold snare polypectomy (CSP), 235  
 Colonic mucosa, 13  
 Colonic neoplasias, 7, 13, 15  
 Colonic neoplastic lesions, characteristics of, 30, 33  
     classic polypoid adenoma–carcinoma pathway, 31  
     flat/depressed colonic adenoma–carcinoma pathway, 31  
     HNPCC, 34  
     serrated adenoma–carcinoma pathway, 31, 34  
 Colonic pit pattern, 244  
 Colonic wall, 80  
 Colonoscopy, 102, 111  
 Colorectal cancer (CRC), 103–105  
 Colorectal lesions, 247–253  
 Colorectal mucosa, 243, 244, 246  
 Colorectum  
     adenomas, dysplasia and early colorectal cancer  
         anal squamous cell lesion  
             0-IIb-G, 287, 289  
         large rectal LST-G mixed type invading anal channel, 278, 280  
         LST-G whole nodular type (0-Is + Isp), 278, 279  
         LST-NG, 275, 277, 281, 283–285  
         rectal LST-G, 286–288  
         relatively large cecal lesion LST-G whole nodular, 281, 282  
         small lesion 0-IIa + c, 276, 278  
         small lesion 0-Is + 0-IIc, 275, 276  
     anal canal, lesions of, 274, 275  
     colorectal lesions  
         NICE types, 247–251  
         macroscopic type and appearance of, NICE type 2, 252, 253  
     colorectal mucosa and neoplasias, structure of, 243, 244, 246  
     curative endoscopic resection in, 40  
     macroscopic types, prevalence and carcinoma risk of, 242  
     magnifying endoscopy, differential diagnosis of lesions, 253  
     JNET type 2 lesions, differential diagnosis of, 254–259  
     superficial AC vs. deep sm-invasive AC, diagnosis of, 257, 259–264  
     tentative distinction of serrated lesions, JNET type 1, 265–270  
     mucosal neoplasias, endoscopic resection of, 271  
     ESD, 273, 274  
     snaring resection techniques, 272, 273  
 Columnar epithelial mucosa, 13  
 Columnar epithelium-lined esophagus, *see* Barrett's esophagus  
 Columnar intraepithelial neoplasia (CIN), 38  
 Columnar mucosa-lined esophagus, microarchitecture of, 21, 22  
 Concomitant dysplasia, 296  
 Condylomata acuminata, 275  
 Crohn's colitis, 295  
 Curative endoscopic resection, in esophagus, stomach, and colorectum, 30  
 Cylinder epithelial dysplasia, 38, 40
- D**
- Deeper muscularis mucosae (DMM), 159  
 Deeply sm-invasive carcinoma, 206, 207  
 Deep sm-invasion, 156  
 Deep sm-invasive AC, diagnosis of, 257, 259  
 Delayed perforation, 56  
 Depressed lesions, differential diagnosis of, 185–193, 248  
 Differentiated adenocarcinoma, 179, 257  
 Diffuse/signet-ring type gastric cancer, 36  
 Duodenal adenocarcinoma, 235, 237  
 Duodenal adenomatosis, 230  
 Duodenal neoplasias, 230–235  
 Duodenal NET, 72  
 Duodenum, 114  
     adenoma and adenocarcinoma in, 229, 230  
     ampullary adenomas, 225, 226  
     duodenal neoplasias, endoscopic resection of, 230–235  
     endoscopic analysis of, 226, 227  
     incidence and risk of malignant transformation, 223–225  
     non-ampullary duodenal adenomas  
         duodenal adenocarcinoma with submucosal invasion, 235, 237  
         low-grade duodenal adenoma, 234–236

- Duplication cyst, 84–86
- Dysplasia, 34
  - anal squamous cell lesion 0-IIb-G, 287, 289
  - Barrett's lesion type 0-IIa, 162
  - Barrett's esophagus and submucosal lesion, 165, 166
  - circular Barrett's carcinoma 0-Ip/s + IIa, 163, 164
  - early Barrett neoplasia type 0-Is, 160
  - large rectal LST-G mixed type invading anal channel, 278, 280
  - LST-G whole nodular type (0-Is + Isp), 278, 279
  - LST-NG, 275, 277, 281, 283–285
  - mucosal adenocarcinoma, underwater and acetic acid delineation of, 166, 167
  - with mucosal cancer, 167, 169
  - multifocal Paris 0-Is lesions, 165
  - with Paris 0-Is submucosal lesion, 166, 168
  - rectal LST-G, 286–288
  - relatively large cecal lesion LST-G whole nodular, 281, 282
  - small lesion 0-IIa + c, 276, 278
  - small lesion 0-Is + 0-IIc, 275, 276
- Dysplasia-associated lesion or mass (DALM), 296
  
- E**
- Early gastric cancer (EGC)
  - gastroscopy for detection, 176
    - early gastric neoplasia, endoscopic structure of, 179, 180
    - gastric mucosa, 176–179
  - stomach
    - endoscopic resection of, 207
    - mucosal early gastric cancer, invasion depth, 194, 195
    - shape of lesion, invasion depth, 180–193
    - shape of mucosal folds, invasion depth, 180–193
- Early gastric neoplasias (EGN), 207, 208
- Echogenicity, 80
- EFTRD, 48, 49
- Electrocoagulation syndrome, 56
- Electrosnaring, 48
- Endoscopic en-bloc resection, 49, 51–53
- Endoscopic mucosal resection (EMR), 41, 42, 48, 137, 272
  
- Endoscopic resection techniques, 71
- Endoscopic submucosal dissection (ESD), 41, 42, 47, 49, 53, 55, 273, 274, 302
  - complications, 56, 57
  - minor invasive endoscopic surgery, 57, 58
  - outcome of, 55, 56
- Endoscopy
  - gastric cancer, 106, 107
    - adenocarcinoma of esophagus/gastroesophageal junction, 108, 109
    - SCC, 107
  - screening and surveillance, rationale for, 102
    - colonoscopy, for CRC prevention, 102
    - colorectal cancer, individuals with increased risk for, 103–105
  - standards for screening and surveillance, 109, 110
    - colonoscopy, 111
    - periprocedural precautions, 114, 115
    - upper gastrointestinal endoscopy, 112, 113
- Esophageal columnar epithelium, surface pattern, 170
- Esophageal neoplastic lesions, characteristics of, 38
  - Barrett's adenocarcinoma, 38
  - squamous epithelial cell dysplasia–cancer pathway, 40, 41
- Esophageal squamous cell cancer, 107
- Esophageal wall, 81
- Esophagitic lesions, 128
- Esophagus, curative endoscopic resection in, 30
- Expanded snaring techniques, 48
  
- F**
- Familial adenomatous polyposis (FAP)
  - duodenal adenomatosis in, 230
  - resection of adenomas, 234, 235
- Familial diffuse gastric cancer (FDGC), 35
- Familial intestinal gastric cancer (FIGC), 35
- FAP duodenal adenomatosis, 224
- Five-layered echo-structure, 80
- Flat adenoma, 302, 303
- Flat carcinoma, 302, 304
- Flat/depressed colonic adenoma–carcinoma pathway, 31
- Flat dysplasia, 301
- Flat HNPCC neoplasias, 255
- Flat lesions, 7, 248

**G**

Gastric adenocarcinoma  
 analysis of, 195–206  
 histological type, prediction of, 196–206  
 pit patterns, 197–206  
 surface pattern and vascular pattern, 201  
 vascular patterns, 197–206  
 villous pattern, 196–206  
 characteristics of, 35  
 diffuse/signet-ring type gastric cancer, 36  
 gastric phenotype carcinoma, 36  
 HDGC, 38  
 intestinal-type gastric adenocarcinoma, 36  
 Gastric cancer, 102, 106–109  
 Gastric GIST, 73, 76  
 Gastric metaplasia, 226  
 Gastric mucosa, 176–179  
 Gastric neoplastic lesions  
 atrophic gastritis with tiny reddish area type 0-IIb, 208, 214–218  
 pale lesion type 0-IIc, 208, 209  
 reddish lesion type 0-IIa+b, 208, 210  
 reddish lesion type 0-IIa+c, 208, 211–213  
 small lesion 0-IIa, 213, 219  
 suspect lesion 0-IIa+c, 213, 221  
 Gastric NET, 70  
 Gastric phenotype carcinoma, 36  
 Gastric wall, 80, 81  
 Gastroesophageal junction (GEJ), 108, 109, 141–143  
 Gastrointestinal (GI) tract, 80, 81, 101  
 indications for endoscopic en-bloc resection in, 51, 53  
 minimally invasive resection techniques, 71  
 endoscopic resection techniques, 71  
 LECS, 71  
 subepithelial gastrointestinal tumors  
 duodenal NET with fibrosis, 72, 75  
 duodenum, NET in, 73  
 gastric GIST, 73, 76  
 SM layer, esophageal SET of, 72  
 symptomatic esophageal SET, 72, 74  
 Gastrointestinal stromal tumor (GIST), 66, 87  
 Genomically stable tumor, 35  
 GI tract, morphologic carcinogenesis  
 colonic neoplastic lesions, characteristics of, 30, 33  
 classic polypoid adenoma–carcinoma pathway, 31

flat/depressed colonic adenoma–carcinoma pathway, 31  
 HNPCC, 34  
 IBD, inflammation–dysplasia–cancer pathway, 34  
 serrated adenoma–carcinoma pathway, 31, 34  
 EMR/ESD, 41, 42  
 endoscopic features, 25  
 esophageal neoplastic lesions, characteristics of, 38  
 Barrett’s adenocarcinoma, 38  
 squamous epithelial cell dysplasia–cancer pathway, 40, 41  
 gastric adenocarcinomas, characteristics of, 35  
 diffuse/signet-ring type gastric cancer, 36  
 gastric phenotype carcinoma, 36  
 HDGC, 38  
 intestinal-type gastric adenocarcinoma, 36  
 Paris Classification  
 malignant mucosal neoplasms, classification of, 26, 27  
 malignant potential, 27–29  
 Western and Japanese classifications, 25  
 Glycogenic acanthosis, 130  
 Granular cell tumors (GCT), 67, 87

**H**

Hamartomatous polyps, 225  
 Hereditary diffuse-type gastric cancer (HDGC), 38  
 High-definition (HD) endoscopy, 4  
 High-grade anal dysplasias, 275  
 High-grade intraepithelial neoplasia (HGIN), 26, 121, 206, 207  
 High-resolution endoscopic ultrasound (hr-EUS), 79  
 early neoplasia 0-IIc, 92, 97  
 gastric lesion 0-IIc, 92  
 gastrointestinal tract, endosonographic anatomy of, 80, 81  
 neoplasia type 0-IIc, 92, 95  
 performance of, 80  
 small rectal lesion 0-Is, 90  
 superficial epithelial neoplasias, staging, 82  
 differential diagnosis of, 84  
 limitations, 83, 84  
 N staging, 83  
 SEL, differential diagnosis of, 84, 86

- SM/PM layer, tumors originating from, 87, 88, 90
    - tumor category, 82
  - Homogeneous protuberant lesions, 187–188
  - Human papillomavirus (HPV) infection, 275
  - Hybrid ESD, 53
  - Hyperechoic, 80
    - layer, 80
    - structure, 86
  - Hyperplastic (non-neoplastic) polyps (HP), 247
  - Hyperplastic polyposis (HPS), 269, 270
  - Hypoechoic, 80
    - arch, 82
    - fan, 82
    - layer, 80
    - lesion, 82
  - Hypopharynx
    - minute esophageal red spot, 140, 141
    - reddish lesion 0-IIb in, 144–146
    - SCC, endoscopic surveillance for, 121, 122
- I**
- Image-enhanced endoscopy (IEE)
    - analysis, 12
    - mucosal neoplastic lesions, 10, 11
  - Incident low-grade dysplasia, 297
  - Inflammation–dysplasia–carcinoma pathway, 30
  - Inflammatory bowel disease (IBD)
    - colonic neoplasias, factors increasing risk, 293, 294
    - CRC risk, colonoscopic surveillance for chromoendoscopy and magnifying NBI, 295
    - surveillance protocol, 294, 295
    - inflammation–dysplasia–cancer pathway, 34
    - neoplastic lesions
      - chronic ulcerative colitis, flat adenoma in, 302, 303
      - long-standing ulcerative colitis, flat carcinoma in, 302, 304
      - management of, 301, 302
      - raised dysplasia, 305, 306
    - surveillance colonoscopy for dysplasia, focality of, 301
    - prevalent vs. incident low-grade dysplasia, 297
    - visible dysplasia, diagnosis of, 296–301
  - Inflammatory lesions, 128
  - Inflammatory polyps, 133
  - Inflammatory pseudopolyps, 247
  - Intestinal-type gastric adenocarcinoma, 36
  - Intraepithelial neoplasia (IEN), 38
  - Intramucosal cancer, 190
  - Intrapapillary capillary loops (IPCL), 12
  - Inverted diverticulum, 247
  - Invisible dysplasia, 35
  - Irregular microvessels, 201
  - Irregular narrowing of sm-echo, 82
- J**
- Japan Esophageal Society (JES), 126
  - Japan NBI Expert Team (JNET), 14, 18
- L**
- Lamina propria mucosa (LPM), 4, 5, 38
  - Laparoscopic–endoscopic cooperative surgery (LECS), 50, 72
  - Laparoscopic resection (LR), 47
  - Laterally spreading-type (LST) neoplasia, 7
  - Leiomyoma (LM), 67, 87
  - Light blue crests (LBC), 177
  - Lipoma, 86
  - Long-standing ulcerative colitis, flat carcinoma in, 302, 304
  - Low-grade dysplasia (LGD), 297
  - Lugol-unstained areas, 124
  - Lymphomas, 65, 86
  - Lymphangioma, 84
- M**
- Magnifying narrow-band imaging (M-NBI), 226
  - Malignant mucosal neoplasms, classification of, 26, 27
  - Massive submucosal invasion, 190
  - Microsatellite instability (MSI), 105
  - Microvascular patterns, 126, 128, 129
  - Minor invasive endoscopic surgery, 57, 58
  - Mixed-type serrated adenoma (MSA), 268
  - Modified Spigelman score, 224
  - Mucosa-associated lymphoid tissue (MALT) lymphoma, 65
  - Mucosal adenocarcinoma, underwater and acetic acid delineation of, 166, 167



- Mucosal neoplasias
- chronic inflammatory bowel disease (*see* Inflammatory bowel disease (IBD))
  - colorectum (*see* Colorectum)
  - duodenum and small bowel (*see* Small bowel adenomas)
  - endoscopic resection of, 271
    - ESD, 273, 274
    - snaring resection techniques, 272, 273
  - endoscopic submucosal dissection, 53, 55
    - complications, 56, 57
    - minor invasive endoscopic surgery, 57, 58
    - outcome of, 55, 56
  - GI tract, indications for endoscopic en-bloc resection in, 51, 53
  - squamous cell-lined esophagus and hypopharynx (*see* Squamous cell-lined esophagus)
  - stomach (*see* Stomach)
  - superficial epithelial neoplasias
    - endoscopic en-bloc resection techniques, 49, 50
    - laparoscopic resection techniques, 50, 51
    - polypectomy, EMR, and EFTRD, 48, 49
- Mucosal neoplastic lesions
- characteristics of, 6–9
  - IEE, analysis, 10–12, 14
    - colonic neoplasias, microarchitecture of, 13, 15
    - columnar mucosa-lined esophagus, microarchitecture of, 21, 22
    - gastric mucosa and neoplasia, microarchitecture of, 16, 18
  - magnifying endoscopy, 8, 10
  - squamous mucosa and neoplasias, capillary structure of, 12
  - standard endoscopy and chromoendoscopy techniques, 4
    - WLI and chromoendoscopy CE, 5, 6
- Mucosal smooth muscle (MM) layer, 38
- Multi Light™ system, 9
- N**
- Narrow-band imaging (NBI), 4, 10, 295
- Narrow-Band Imaging International Colorectal Endoscopic (NICE) classification, 14, 18
- Neoplasias, 12, 128
- Neoplastic lesions, 122, 133
- Neoplastic non-ampullary mucosal lesions, differential diagnosis, 226, 228, 229
- Neoplastic pits, 198
- Neoplastic villi, 197–206
- Neuroendocrine tumors (NET), 68–70, 88
- Non-ampullary duodenal adenomas
  - duodenal adenocarcinoma with submucosal invasion, 235, 237
  - low-grade duodenal adenoma, 234–236
- Non-exposed endoscopic wall inversion surgery (NEWS), 50, 51
- Nonneoplastic lesions, 128
- Non-neoplastic non-ampullary mucosal lesions, differential diagnosis, 226–229
- Non-neoplastic polyps, 179
- Nottingham classification, 156
- O**
- Optical biopsy, 136
- P**
- Panchromoendoscopy, 295
- Pancreatobiliary reflux, 131
- Partial circumferential incision (PCI) method, 53, 54
- Periprocedural precautions, 114, 115
- Permeation, 133
- Pharyngeal squamous cell cancer, 107
- Pigmented melanosis, 129
- Pink color sign, 124
- Pit-like structure, 201
- Pit patterns, 14, 197–206
- Pocket creating method (PCM), 53
- Polyp–cancer sequence, 30
- Polypectomy, 48
- Polypoid lesions, 64
- Poorly differentiated adenocarcinoma (PDAC), 20, 201
- Poorly differentiated/undifferentiated early cancers, 29
- Prevalent low-grade dysplasia, 297
- Primary sclerosing cholangitis (PSC), 294
- Proctosigmoiditis, 295
- Protruded-type early colon cancer, 257
- Protruded-type polyps, 241
- Protruding lesions, 226
- Protruding neoplasia, 254
- Protuberant lesions, differential diagnosis of, 181–184
- Pyloric type gastric adenomas, 183–184
- R**
- Rare malignant neoplasias, 90
- Rectal prolapse syndrome (RPS), 269
- Reddish flat lesions, 128
- Reddish protruding lesions, 133

**S**

- Sentinel node navigation surgery (SNNS), 50
- Serrated adenocarcinoma (SAC), 265
- Serrated adenoma (SA), 31, 33, 252, 267
- Serrated lesions (SL), 265
- Serrated polyposis syndrome (SPS), 268, 270
- Sessile/elevated SET, 64
- Sessile hyperplastic polyp, 248
- Sessile serrated adenomas (SSA), 265, 266, 268–269
- Severe stenosis, 57
- Shape pattern, 82
- Small bowel adenomas
  - ampullary adenomas, 225, 226
  - endoscopic analysis of, 226, 227
  - incidence and risk of malignant transformation, 223–225
  - non-ampullary duodenal adenomas
    - duodenal adenocarcinoma with submucosal invasion, 235, 237
    - low-grade duodenal adenoma, 234–236
  - non-neoplastic vs. neoplastic non-ampullary mucosal lesions, differential diagnosis, 226, 228, 229
- Small early gastric cancer, 17
- Snare polypectomy, 272
- Soft tissue sarcoma, 66
- Solid gastrointestinal SET
  - gastric NET, 70
  - GCT, 67, 68
  - GIST, 66, 67
  - leiomyoma, 67
  - NET, 68, 70
  - solid SET, 65
- Solitary rectal ulcer, 249
- Sporadic adenomas, 301
- Sporadic mucosal cancer, 298
- Sporadic non-ampullary duodenal adenomas, 223
- Squamous cell cancer (SCC), esophageal and pharyngeal, 107
- Squamous cell-lined esophagus
  - endoscopic diagnosis of, 128, 131, 134–135, 138
  - endoscopic resection, 137–140
  - gastroesophageal junction, flat reddish area oral to, 141–143
  - microvascular patterns, 126, 128, 129
  - minute esophageal red spot, 140, 141
  - SCC, endoscopic surveillance for, 121, 122
  - WLI observation, endoscopic signs of neoplastic lesions, 122–124
- Squamous epithelial cell dysplasia, 40, 41
- Squamous mucosa, capillary structure of, 12
- Stomach, 113
  - curative endoscopic resection in, 30
  - EGC, gastroscopy for detection, 176
    - early gastric neoplasia, endoscopic structure of, 179, 180
    - gastric mucosa, 176–179
  - EGC on WLI
    - mucosal early gastric cancer, invasion depth, 194, 195
    - shape of lesion, invasion depth, 180–193
    - shape of mucosal folds, invasion depth, 180–193
  - EGN, endoscopic resection of, 207, 208
  - gastric adenocarcinoma
    - histological type, prediction of, 196–206
    - pit patterns, 197–206
    - surface pattern and vascular pattern, 201
    - vascular patterns, 197–206
    - villous pattern, 196–206
  - gastric cancer, individuals with increased risk for, 175
  - gastric neoplastic lesions
    - atrophic gastritis with tiny reddish area type 0-IIb, 208, 214–218
    - pale lesion type 0-IIc, 208, 209
    - reddish lesion type 0-IIa+b, 208, 210
    - reddish lesion type 0-IIa+c, 208, 211–213
    - small lesion 0-IIa, 213, 219
    - suspect lesion 0-IIa+c, 213, 221
  - HGIN/superficially sm-invasive vs. deeply sm-invasive carcinoma, 206, 207
  - observation with conventional WLI
    - endoscopy, 180
    - depressed lesions, differential diagnosis of, 185–193
    - protuberant lesions, differential diagnosis of, 181–184
- Subepithelial gastrointestinal tumors
  - differential diagnosis of, 64, 65
- GI tract
  - duodenal NET with fibrosis, 72, 75
  - duodenum, NET in, 73
  - endoscopic resection techniques, 71
  - gastric GIST, 73, 76
  - LECS, 71
  - SM layer, esophageal SET of, 72
  - symptomatic esophageal SET, 72, 74
- solid gastrointestinal SET
  - gastric NET, 70
  - GCT, 67, 68
  - GIST, 66, 67
  - leiomyoma, 67
  - NET, 68, 70
  - solid SET, 65
- Subepithelial lesions (SEL), 63, 79
- Submucosal fibrosis, 231
- Submucosal invasion, 190

Submucosal lesion, 165, 166  
 Submucosal protuberant lesions, 195  
 Submucosal tunneling endoscopic resection (STER), 71, 74  
 Superficial AC, 257, 259  
 Superficial differentiated adenocarcinoma, 257  
 Superficial epithelial neoplasias  
   endoscopic en-bloc resection techniques, 49, 50  
   hr-EUS, 82  
     differential diagnosis of, 84  
     limitations, 83, 84  
     N staging, 83  
     SEL, differential diagnosis of, 84, 86  
     SM/PM layer, tumors originating from, 87, 88, 90  
     tumor category, staging of, 82  
     laparoscopic resection techniques, 50, 51  
     polypectomy, EMR, and EFTRD, 48, 49  
 Superficially sm-invasive carcinoma, 206, 207  
 Superficial muscle layer (SMM), 38  
 Superficial protruding lesions, 7  
 Superficial sm invasion, 156  
 Surface enhanced endoscopy, 196–206  
 Surface pattern, 170, 201  
 Systematic screening protocol for the stomach (SSS), 114

## T

Tangential approach, 53  
 Tenting sign, 86  
 Traditional serrated adenomas (TSA), 268–269

Tumor budding, 28  
 Tunnelling technique, 53

## U

UC-associated mucosal cancer, 299  
 Ulcerative colitis (UC), 298  
 Ulcerative proctitis, 295  
 Uncertain surface pattern, 204  
 Underwater EMR (UEMR), 231, 232  
 Undifferentiated adenocarcinoma, 195  
 Undifferentiated carcinoma, 257  
 Undifferentiated gastric cancers (PDAC), 180  
 Upper gastrointestinal endoscopy, 112, 113  
 Uppermost intact, 82

## V

Vascular pattern (VP), 18, 197–206  
 Vascular tumors, 84  
 Vessel pattern (VP), 258–259  
 Villous pattern, 196–206  
 Villous structure, 201  
 Visible dysplasia, 35

## W

Well differentiated adenocarcinoma (WDAC), 195  
 Well-differentiated mucosal cancer, 27  
 White light imaging (WLI), 5, 6