Color 1  Expandable metallic stent inserted into the pyloric stenosis.
Color 2  Endoscopic image showing complete obstruction of the third portion of the duodenum that makes guidewire insertion impossible.

Color 1  Case 1: En bloc resection by ESD was performed. a: Conventional view with indigo-carmine spraying. b: Severe fibrosis is recognized in the submucosal layer, but muscle layer is detected. c: Histopathological evaluation showing neoplasm is tub1, pM, ly0, v0, pHM0, pVMX, 60×40 mm, with submucosal fibrosis.
Color 2  Case 2: En bloc resection by ESD was not possible. a: LST-G (Nodular mixed type) located at the rectum with reddish and depressed area. b: Muscle layer cannot be detected. c: Histopathological evaluation showing neoplasm is tub1 + tub2, pSM(1,250μm), ly0, v0, pN0, 55×50 mm, with submucosal fibrosis.

Color 1  Laparoscopic surgery of obstructive colorectal cancer cases treated with extendable metallic stent (EMS).
症例 清川博史, 他論文 ＜本文87頁－89頁＞

Color 1 Endoscopic image showing a reddish protruding lesion on the right wall of the esophagogastric junction (EGJ).
Color 2 After indigo carmin staining, the surface pattern of the tumor is clearer.
Color 3 Magnifying endoscopy with NBI. The tumor has an absence of surface pattern and an irregular microvascular pattern.
Color 4 Macroscopic view of the resected specimen. Schematic drawing showing depth of cancerous invasion.
Color 5 Histopathological section of the resected specimen (hematoxylin and eosin staining of resected specimen from ESD), intramucosal adenocarcinoma close to specialized columnar epithelium (×40).
Color 6 Histopathological section of desmin showing adenocarcinoma has invaded to the SM2.

症例 近山 琮, 他論文 ＜本文90頁－91頁＞

Color 1 Upper gastrointestinal endoscopy. Candida esophagitis (Kodsi Grade 4) is present.
Color 2 Esophagogastroduodenoscopy. Candida esophagitis has been resolved.
Color 3 Esophagogastroduodenoscopy. Six months after treatment, there is no recurrence of Candida esophagitis.

症例 渡邉大輔, 他論文 ＜本文92頁－93頁＞

Color 1 Endoscopic features of Crohn’s disease of the esophagus. Images showed superficial aphthous ulcers using. a : Conventional endoscopy. b : Chromo endoscopy with 0.2% indigo carmine dye spraying.
**症例 石井賢二郎，他論文**  
＜本文94頁－95頁＞

**Color 1**  a: Mucosal edema and stenosis from esophageal erosion is seen in middle esophagus. b: Lower esophagus has a ring of white mucus.

**Color 2**  Endoscopic images showing mucosal edema is no longer present and erosion has regressed, but middle esophagus has a ring of white mucus and the stenosis still remains.

**Color 3**  a, b: Endoscopic images showing esophageal stenosis with circumferential extent of a half around tense bulla in upper esophagus. c: The bulla is ruptured by contact from the endoscope, and the stenosis removed. Middle and lower esophagus had no particular lesions visible on endoscopy.

**症例 篠崎浩治，他論文**  
＜本文96頁－97頁＞

**Color 1**  EGD showing submucosal tumor in lower esophagus.

**Color 2**  Histological sections of EUS–FNAB specimen. Hematoxylin–eosin staining showing dense spindle cells arranged in a palisade pattern (a) and positive immunohistochemical staining for c–kit (b). MIB-1 labeling index is less than 2% of tumor cells (c).

**症例 内藤 舞，他論文**  
＜本文98頁－99頁＞

**Color 1**  Endoscopic view in Case 1 on admission: a dark red-colored mass protrudes into the lumen of entire esophagus.

**Color 2**  Endoscopic view in Case 1 on day 3 of hospitalization: the hematoma has collapsed and ulceration has developed.

**Color 3**  Endoscopic view in Case 1 at on day 14 of hospitalization: the hematoma has disappeared and a longitudinal ulcer is present.

**Color 4**  Endoscopic view in Case 1 after 3 months: the ulcer has scarred and healed.

**Color 5**  Endoscopic view in Case 2 on admission: a bluish submucosal lesion is observed.

**Color 6**  Endoscopic view in Case 2 after 3 months: the protruding lesion has disappeared.
症例 中原史雄, 他論文
<本文100頁 – 101頁>

Color 1  Endoscopic images showing a type 2 tumor + II b lesion in the esophagus.

症例 森 一洋, 他論文
<本文102頁 – 103頁>

Color 1  Second lesion. a: Superficial protruding lesion with slightly elevated component. b: Iodine staining.

Color 2  Third lesion. a: Flat reddish lesion is seen. b: Iodine staining. c: NBI imaging. d: NBI magnified image showing irregular intraepithelial papillary capillary loops.

症例 一坂俊介, 他論文
<本文104頁 – 105頁>

Color 1  Esophagogastroduodenoscopy showing depressed lesion with ulceration. Surface of ulcer is covered with slough.

Color 2  Histological findings. hematoxylin and eosin staining (a, b: ×100, c, d: ×400).

(a, b: Medium power magnification of resected tissue. Intraepithelial squamous cell carcinoma at border of ulcerative lesion (white arrow). c: High power magnification. Trabecular components of BSC. d: High power magnification of glandular area. Duct-like and microcystic structures in fibromyxoid stroma.)
Color 1  Endoscopic image showing the pedunculated polyp in the cervical esophagus. It is reddish and bleeds easily.
Color 2  Endoscopic image showing ectopic gastric mucosa at the base of the tumor. EMR was performed using a snare of 15 mm diameter.
Color 3  Histopathological section (tub2, pT1a–LPM, ly0, v0, RM0) showing squamous epithelium and fundic glands at the base of the tumor (HE stain ×40).

Color 1  Removal of the glass fragment using the endoscope cap. Part of the fragment is outside (arrow) the edge of the attachment (arrowheads).
Color 2  Removal of the glass fragment using the skirt-type hood. The entire fragment is enveloped in the skirt-type hood.

Color 1-a  Gastrointestinal endoscopic image showing a fish bone penetrating into the anterior wall of the antrum.
Color 1-b  The penetrating fish bone is removed using grasping forceps in a tip transparent hood.
Color 1-c  Clip placement is performed at the fish bone removal site.
Color 2  An image showing the resected fish bone measuring 43 × 3 mm, and 30 mm was buried in the gastric wall.
## Color 1

Endoscopic findings showing yellow-green phytobezoar in fornix (a, b) and ulcer with perforation in upper body of stomach (c).

## Color 2

Grasping forceps (a) and wire snare (b) are used for fragmentation of phytobezoar. Complete phytobezoar removal is achieved (c).

## Color 1

Endoscopic view of occlusion in lower body of stomach.

## Color 1 Color 2

Upper gastrointestinal endoscopy image showing a large irregularly shaped shallow ulcer on the angular part of the lesser curvature of the stomach body.

**Color 2**  Cytophagia (CMV) studies on gastric biopsy specimens taken on day 49 after admission. (a) Histological findings (HE stain, ×200) showing CMV intracellular inclusion bodies (open circle) in gastric biopsy specimens. (b) CMV antigen corresponding to intracellular inclusion bodies is confirmed (open circle) using an immunoperoxidase method with monoclonal CMV antibody.
**Case 1**  Endoscopic photograph showing 35 mm-sized pedunculated protrusion in the major curvature of the upper gastric body. Surface of the lesion appears to be normal mucosa with some slight depressions.

**Case 2**  Pathological findings showing areas of inverted growth of mucosa and muscularis mucosa with tearing caused by impaction of mucosa.

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**Case 1**  Gastrointesinal endoscopy showing ulcerative lesions at the gastric angle and fornix.
**Case 2**  Immunohistochemistry confirms malignant T-cell lymphoma.
**Case 3**  Endoscopy approximately one year later, showing healing ulcers.

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**Case 1**  Endoscopic picture in a left lateral position shows large amounts of clot, and source of bleeding is not clear.
**Case 2**  Endoscopic picture in a right lateral position shows the ulcer clearly.
**Case 1**  
Upper gastrointestinal endoscopy showing arterial bleeding from the surface of the submucosal mass located at the lesser curvature of lower gastric body.

**Case 2**  
On immunohistochemical staining, the tumor is strongly positive for c-kit (c-kit ×100).

**Case 3**  
Esophagogastroduodenoscopy (EGD) revealing the SMT approximately 19 mm in diameter on the middle body anterior wall of the lesser curvature.

**Case 4**  
a: Histopathological findings showing spindle shaped cells with oval nuclei. b, c: Immunohistochemical staining for both c-kit and CD34 are positive. d: MIB-1 index was <10%.

**Case 5**  
Complete resection possible with a minimum excision range.

**Case 6**  
a: Endoscopic image showing flat whitish flat elevation at the posterior wall of the greater curvature of the angulus.

b: Endoscopic image with indigo carmine dye spraying.

**Case 7**  
EMR-C is performed. The resected specimen was 15×13 mm containing a lesion of 8×2 mm in diameter.

**Case 8**  
a: IPMN has penetrated the gastric wall and is associated with massive amounts of white mucous discharge at the posterior wall of the middle gastric corpus. b: Progression of IPMN penetration is observed.
症例 江塚明子，他論文  
＜本文132頁－133頁＞

**Color 1**  Endoscopy image showing a 10 mm–sized pedunculated hyperplastic polyp with erosion and friable region at the greater curvature of the body of the stomach.

**Color 2**  Histopathological show revealed development of a well-differentiated adenocarcinoma arising within a hyperplastic polyp (HE stain, ×4).

症例 永田鉉子，他論文  
＜本文134頁－135頁＞

**Color 1**  Endoscopic findings show a IIc lesion (5 mm) surrounded by edematous mucosa at the lesser curvature of the antrum.

**Color 2**  Histopathological findings show a very small amount of well–differentiated adenocarcinoma at the surface of the mucosal layer (red squares) and neuroendocrine carcinoma invasion of the submucosal layer (blue square).

症例 山田康隆，他論文  
＜本文136頁－137頁＞

**Color 1**  EGD showing hyperplastic polyp (8 × 7 mm) with erosion (2 × 3 mm), located in antrum of greater curvature of stomach.

**Color 2**  Magnifying endoscopy with narrow band imaging (NBI) showing disappearance of superficial mucosal formation.

**Color 3**  Magnifying endoscopy with narrow band imaging (NBI) showing disappearance of fine network pattern.
Color 1  Immunohistochemistry: Both lesion of tubular adenocarcinoma and hepatoid adenocarcinoma lesions are positive for CAM5.2 stain (a, b: ×100). Tubular adenocarcinoma lesion also positive for AFP stain (c, d: ×100), for which hepatoid adenocarcinoma lesion negative.

Color 2  a: Via upper gastrointestinal tract endoscopy, an irregular elevated tumor is observed at the lesser curvature of the lower third of the stomach. b: The lesion is clearly demonstrating using indigo carmine staining.

Color 3  Endoscopic image showing a SMT-like elevated lesion with a slightly depressed and erythematous region.

Color 2  Histopathological section of the resected specimen. Hematoxylin and eosin staining (a: ×2, b: ×4). A well to moderately differentiated adenocarcinoma invaded into the deep submucosal layer (bar=2,200μm). The regenerative epithelium distributed on the surface of the cancerous lesion.

Color 3  Histopathological findings of the resected specimen. Carcinoma cells are positive for H’/K’-ATPase (a), Pepsinogen I (b), MUC6(c).
症例  藤本祐未，他論文  
＜本文144頁－145頁＞

Color 1  Endoscopic image.  
Color 2  Indigo dyeing.

症例  植松淳一，他論文  
＜本文146頁－147頁＞

Color 1  Endoscopic view showing large raised lesion with appearance of submucosal tumor on lesser curvature of gastric body. 
Color 2-a  Histological diagnosis of non–solid type poorly differentiated adenocarcinoma (HE stain × 100).  
Color 2-b  Anti-G-CSF immunostaining is positive in tumor cells (arrows) (× 200).

症例 星野好則，他論文  
＜本文148頁－149頁＞

Color 1  Gastroscopy showing elevated hemorrhagic protruding lesion over the gastrojejunal anastomosis.  
Color 2  The anastomosis showing decreased caliber of outlet lumen due to remnant gastric cancer [before (a) and after (b) stent insertion].
**Color 1** Upper gastrointestinal endoscopy showing multiple flat elevated lesions in the gastric body with the appearance of submucosal tumors.

**Color 2** Gastrointestinal endoscopy showing flat elevated lesion and an ulcerative lesion in the duodenum. Colonoscopy showing a flat elevated lesion in the cecum.

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**Color 1** a: Intraoperative view showing the duodenal ulcer perforation, 3 cm in diameter (arrow). b: The omental patch is performed (arrow).

**Color 2** a: EZ Clip with ring of nylon. b: First EZ Clip with ring of nylon is placed at the superior margin of the duodenal hole (b1). A second clip's forceps hook the nylon ring of the first clip (b2). The second clip is placed at the opposite end of the hole. The hole is closed using a pair of clips (b3).

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**Color 1** Endoscopic image showing elevated lesion on the anterior wall of the duodenal bulb.

**Color 2** Histological section showing well-differentiated adenocarcinoma.
症例 皆川卓也，他論文
＜本文158頁－159頁＞

Color 1  Gastrointestinal endoscopy showing duodenal stent occlusion due to tumor ingrowth.

症例 宮田 隆，他論文
＜本文160頁－161頁＞

Color 1  A diverticulum about 4 cm in length is found in the ileum approximately 1 m from the ileocecal valve. Observation via intra-operative endoscopy identified, a diverticulum-in-diverticulum about 2 cm in length. At the base of the diverticulum-in-diverticulum, an ulcer with an exposed blood vessel was observed.

Color 2  Pathological assessment showing heterotopic pyloric glands in the circumference of the ulcer (round mark).

症例 高林一浩，他論文
＜本文162頁－163頁＞

Color 1  Colonoscopy showing a submucosal tumor— with surface erosion and necrotic tissue—in the terminal ileum.

Color 2  Laparoscopic image showing intussusception of the intestine that appears to be related to the tumor.

症例 園部秀樹，他論文
＜本文164頁－165頁＞

Color 1  Resected specimen.

Color 2  Histopathological section : ectopic pancreas (Heinrich type II) (HE staining).
A capsule endoscopy image is shown. Although erythema and erosion can be seen from the distal ileum to the ileocecal valve, there is no apparent active bleeding.

A per-anal single-balloon endoscopic image is shown. Circumferential erythema/erosion/ulcer and mild edematous stricture can be seen in the distal ileum.

Case 1: CE image of hemorrhagic polyp in jejunum.
Case 1: DBE image showing polyp with redness, tenseness and contact bleeding.

Capsule endoscopy showing type 2 tumor at the ileum.
Single balloon enteroscopy showing the tumor with stenosis at the ileum through which the endoscope was unable to pass.

Oral enteroscopy with indigo carmine showing annular stenosis–type tumor at the proximal jejunum. We were unable to pass an enteroscope due to severe stenosis caused by the tumor.
Histopathological features of the jejunum obtained as a biopsy specimen indicate tubular adenocarcinoma.
**Color 1** Endoscopic images show barium stagnation in the sigmoid colon (a). After the barium is removed by lavage, blood clots and an exposed vessel with spurring hemorrhage are revealed (b, c). The serous membrane is also exposed (d).

**Color 2** At surgery, a thin region of the wall measuring 5 cm in length (black arrow) with a small perforated site (white arrow) is identified in the sigmoid colon (a). The resected specimen shows an ulcer measuring 2×1.5 cm in diameter (b).

**Color 1** Colonoscopy image showing mucosal edema with ulcerating lesions confined to rectum.

**Color 2** Colonoscopy image taken two weeks later showing rectal perforation and false lumen in rectum below peritoneal reflection.

**Color 3** Colonoscopy image of rectal rupture from posterior wall to right wall.

**Color 4** Colonoscopy image showing small holes at margin of false lumen.

**Color 1** Colonoscopic findings showing circumferential active mucosal inflammation and multiple ulcers in ascending colon.

**Color 2** Colonoscopic findings showing scarred area with discoloration after use of antitubercular agents.
Color 1 Case 3: Endoscopic image showing anisakiasis in ascending colon.

Color 2 Case 5: Endoscopic image showing anisakiasis in transverse colon.

Color 1 The first colonoscopy showing the longitudinal ulcer scars in the sigmoid colon.
a: Conventional endoscopic image.
b: Indigo carmine dye spraying endoscopic image.

Color 2 Histological findings of the biopsied specimen from the sigmoid colon. a: HE stain (×10), b: HE stain (×20), c: Masson trichrome stain (×20). Masson trichrome staining identified collagen bands that were as thick as 20μm.

Color 1 Case 1: Emergency colonoscopy reveals heavy bleeding without obvious ulcer in the rectum.

Color 2 Case 1: Pressure from the transparent hood on the endoscope enables identification of the bleeding vessel.

Color 3 Case 1: Bleeding from the exposed vessel is treated via endoscopic hemostasis using clips.

Color 4 Case 1: 5 days after treatment, there is no rectal bleeding and several clips remain on the vessel.

Color 5 Case 2: Emergency colonoscopy revealed heavy bleeding from the vessel without obvious ulcer in the rectum.

Color 6 Case 2: Bleeding exposed vessel is treated via endoscopic hemostasis using clips.
症例 永倉 晃人，他 論文
＜本文188頁－189頁＞

Color 1  Endoscopic image showing diffuse small reddish sessile polyposis with edematous inflammatory mucosa of the transverse colon.
Color 2  Histology of the biopsy specimen reveals dilated mucosal gland ducts and invasion by inflammatory cells.
Color 3  Endoscopic image showing a malignant pedunculated polyp of the transverse colon.
Color 4  Histology of the polypectomy specimen reveals a well-differentiated adenocarcinoma.

症例 天野 博明，他 論文
＜本文190頁－191頁＞

Color 1  Colonoscopic image showing circumferential ulceration with stenosis in the right side of the transverse colon.
Color 2  Colonoscopic image showing healing of ulceration with worsening of stenosis on the 22nd day after admittance to hospital.
Color 3  Colonoscopic image showing scar with stenosis 8 months later.

症例 天田 塩，他 論文
＜本文192頁－193頁＞

Color 1  Colonoscopy image of the appendicetal orifice. Image taken just after irrigation of clot covering the cecum. Intermittent exudative bleeding from the appendicetal orifice was observed (black arrow).
Color 2  Pathological examination shows hemorrhage beneath the mucosa and submucosa (black arrow) and the vein was considered to be the source of hemorrhage (yellow arrow) at the appendix (white arrow).
**症例 富田剛志，他論文**
＜本文194頁－195頁＞

**Color 1** Endoscopic image showing point of seeping blood and protuberance of the prostate.
**Color 2** Endoscopic image showing three endoscopic at the point of hemorrhage.

**症例 新藤雄司，他論文**
＜本文196頁－197頁＞

**Color 1** Endoscopic image showing collection of pus and circumferential stricture in the sigmoid colon.
**Color 2** Endoscopic image showing colon stricture with multiple diverticulitis and inflammatory polypoid lesion.
**Color 3** The resected colon has multiple diverticulosis with submucosal fibrosis thickening of the muscle layer.
**Color 4** Pathological specimen revealing multiple sigmoid colon diverticulitis with inflammatory cell infiltration, and mucosal epithelialia.

**症例 今井俊一，他論文**
＜本文200頁－201頁＞

**Color 1** Surgically resected material : Type 2 circumferential cancer with patent lumen and metallic stent. Histopathological examination showed UL-II ulcer of the stent impression.
**Case 1**: Common endoscopy. a: Capillary vessels are visible on mucosa. b: Type II c lesion is reddish in the depressed area. c: indigocarmine spraying.

**Color 2**: Magnifying endoscopy. a: NBI shows and irregular vascular enhancement. b: Indigo carmine spraying shows PitV1.

**Color 3**: Microscopic findings. p-53 (+) carcinoma with p-53(+) dysplasia.

**Case 2**: Colonoscopy revealing a 20mm-sized protruding lesion of the rectum with surrounding edematous change.

**Color 1**

**Color 2**: Magnifying NBI showing an irregular vessel on the tumor surface.

**Color 3**: Magnifying crystal violet staining showing type IV pit pattern on the tumor surface.

**Color 2**: Histological image of the tumor (loupe image).

**Color 3**: Component with signet ring cell carcinoma in poorly differentiated adenocarcinoma (por2) (high power view).
Case 1
a: Conventional endoscopic image showing flat white elevated lesion 10 mm in size at the dentate line of the anal canal.
b: Magnifying endoscopic with NBI findings showing dilatation and tortuosity of vessels.
c: Surgical specimen showing squamous cell carcinoma (SCC) around the dysplasia.
d: Histological findings (hematoxylin and eosin stain) revealing squamous cell carcinoma in mucosal layer.
Case 2
a: Conventional endoscopic image showing flat white elevated lesion 20 mm in size at the dentate line of the anal canal.
b: Magnifying endoscopic with NBI findings showing dilatation and tortuosity of vessels in the area of SCC.
c: Surgical specimen showing remaining dysplastic area at the anal margin (marked *).
d: Histological findings (hematoxylin and eosin stain) revealed SCC in mucosal layer.

Case 1
Endoscopic image during ERCP revealing a massive stone in the common bile duct.
Case 2
Image from endoscopy performed 1 year later does not show a common bile stone.

Color 1 a~c: Endoscopic view on the 4th day after admission. Cannulation of the papilla with the double-balloon enteroscope (EC-450B15) and tipping attachment. d: Bile duct stone fragments successfully being extracted.
症例 中河原浩史，他論文 ＜本文212頁－213頁＞

Color 1 Endoscopic sphincterotomy and common bile duct stone.

症例 石井 優，他論文 ＜本文214頁－215頁＞

Color 1 Endoscopic image showing that the papillary tumor was extending from the papilla of Vater.
Color 2 Histological section showing papillary lesion of the lower bile duct.

症例 伊東明子，他論文 ＜本文216頁－217頁＞

Color 1 The plastic stent has naturally detached off, and the papilla of Vater is obstructed by a blood clot.
Color 2 The blood clot in the bile duct is extracted using a balloon without slipping of the metallic stent.

症例 松野高久，他論文 ＜本文218頁－219頁＞

Color 1 Histological sections are positive for CD56 (a) and Ki-67 (b).
症例 梅沢翔太郎，他論文
＜本文222頁－223頁＞

Color 1 Endoscopic view of trans-duodenal drainage tube insertion under EUS.
Color 2 Endoscopic view of plastic stent insertion through minor papilla after endoscopic sphincterotomy.

症例 高田智司，他論文
＜本文226頁－227頁＞

Color 1 Image showing treatment of bleeding from pancreatic pseudocyst via percutaneous small-caliber endoscopic APC through the fistula. The arrow shows the bleeding site.

(表紙写真)
左：EUS-FNAにて術前診断し得た食道GISTの1例
(篠崎浩治，他：Color 1 EGD showing submucosal tumor in lower esophagus. p.3，本文p.96–97)
右：下部消化管内視鏡検査時に認められた大腸アニサキス症の5例
(上田 義，他：Color 2 Endoscopic image showing anisakiasis in transverse colon. p.16. 本文p.182–183)

22