IASGO-CME 2025

International Association of Surgeons, Gastroenterologists, and Oncologists Advanced Post-Graduate Course in Sapporo

Fri. 27th February 2026

Venue Hokkaido University The Alumni Hall “Frate”

Kita 15, Nishi 7, Kita-ku, Sapporo,060-8638, Japan

Chair Satoshi Hirano

Hokkaido University Faculty of Medicine,
Department of Gastroenterological Surgery II

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Contents

Welcome Message

It is my great honour to announce that IASGO-CME 2025 will be held at Hokkaido University Faculty of Medicine on February 27, 2026.

This event will feature educational lectures by leading experts in gastrointestinal cancer from around the world. It is a rare and valuable opportunity to hear directly from global authorities about the latest advances in the field of gastroenterology.

Additionally, we are offering a special session designed for young presenters who are not accustomed to giving presentations in English. This must be an excellent opportunity to gain experience presenting on an international stage and take the first step toward connecting with the world. As the saying goes, 'practice makes perfect.' We hope that many young doctors will participate.

Sapporo, the host city, will welcome you with its beautiful winter scenery and warm hospitality.
I hope you will fully enjoy both the academic exchange and the unique charms of Hokkaido's winter.

We look forward to welcoming many participants.

President Satoshi Hirano
Professor and Chairman, Hokkaido University Faculty of Medicine,
Department of Gastroenterological Surgery II

Event Overview

Date:
February 27 (Fri), 2026

Venue:
Hokkaido University, the Alumni Hall "Frate"

Congress President:
Satoshi Hirano
Professor and Chairman, Hokkaido University Faculty of Medicine, Department of Gastroenterological Surgery II

Congress Secretariat:
c/o Congrès Inc.
Address: Sapporo Chiyoda Bldg., 5-3, Kita 7, Nishi 5, Kita-ku, Sapporo, Hokkaido 060-0807, Japan
E-mail: iasgo-cme@m.congre.co.jp

Information for Attendees

Luncheon Seminar:
Boxed lunches will be provided at the Luncheon Seminar.

No Smoking:
Smoking is prohibited in all areas of the venue.

No Photos, No Audio Recording:
Taking photos and audio-recordings are prohibited.

Mobile Phones:
Using mobile phones during the sessions is prohibited. Mobile phones must be turned off or set to silent mode during the sessions.

Information for Chairs/Presenters

For Oral Presenters:

<Disclosure of Conflict of Interest (COI)>
Every speaker of both oral and poster sessions should disclose every Conflict of Interest (COI) whether you have any COI or not. Oral speakers should disclose COI in the first slide, and poster speakers should disclose COI at the bottom of the poster.

<PC Presentation>
1. You are recommended to prepare all your presentation slides in 16:9 wide screen format. If you use slides made in 4:3 format, the slides will not be displayed at full screen size (blank spaces will appear on both sides of the screen).

2. Please make your presentation in English. There will be no interpretations.

3. There will be no PC preview desk.
Please proceed directly to the Presentation Room at least 10 minutes prior to the start of your session.

A presentation PC (Windows11/Microsoft365) will be provided at the venue.
Please bring your presentation data on a USB flash drive.

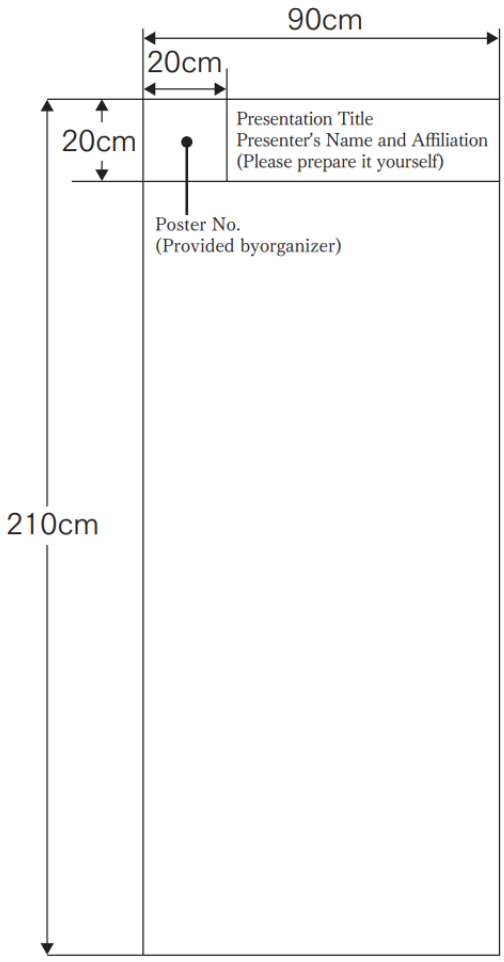
4. Please make sure to bring an AC adapter and other necessary adapters with you. Your PC should be equipped with a power code suitable for 100V, Type A (Japanese 2-pin) plug.

5. Your PC will be connected to the projector with a "HDMI" cable. Some PCs (Mac or thin laptops) will require a conversion adapter.

6. You are requested to go to the Presentation Room at least 10 minutes prior to start of your session.

7. Please make your presentation in English. There will be no interpretations.

For Poster Presenters:



- Preparation time of displaying posters: 8:00 a.m. – 9:00 a.m.
- Removal time: 2:30 p.m. – 3:30 p.m.

1. Presentation time will be 6 minutes, question-and-answer session will be 2 minutes for each poster presentation.

2. Poster panels will be prepared as the figure on the right. Speakers should prepare "Title", "Speaker's Name", "Affiliation" within the size limit of 20cm×70cm. The size limit of "Details of Presentation" is 190cm × 90cm. Organizer will prepare "Presentation Number" and push pins for displaying.

3. There is no registration desk for poster speakers. Please wait in front of your poster panel 5 minutes before designated beginning time of your poster presentation.

4. Please be punctual of the designated time of displaying and removal.

5. Please bring back removed posters with you and note that posters remaining beyond removal time will be disposed by organizer.

6. Please make your presentation in English. There will be no interpretations.

For Chairs:

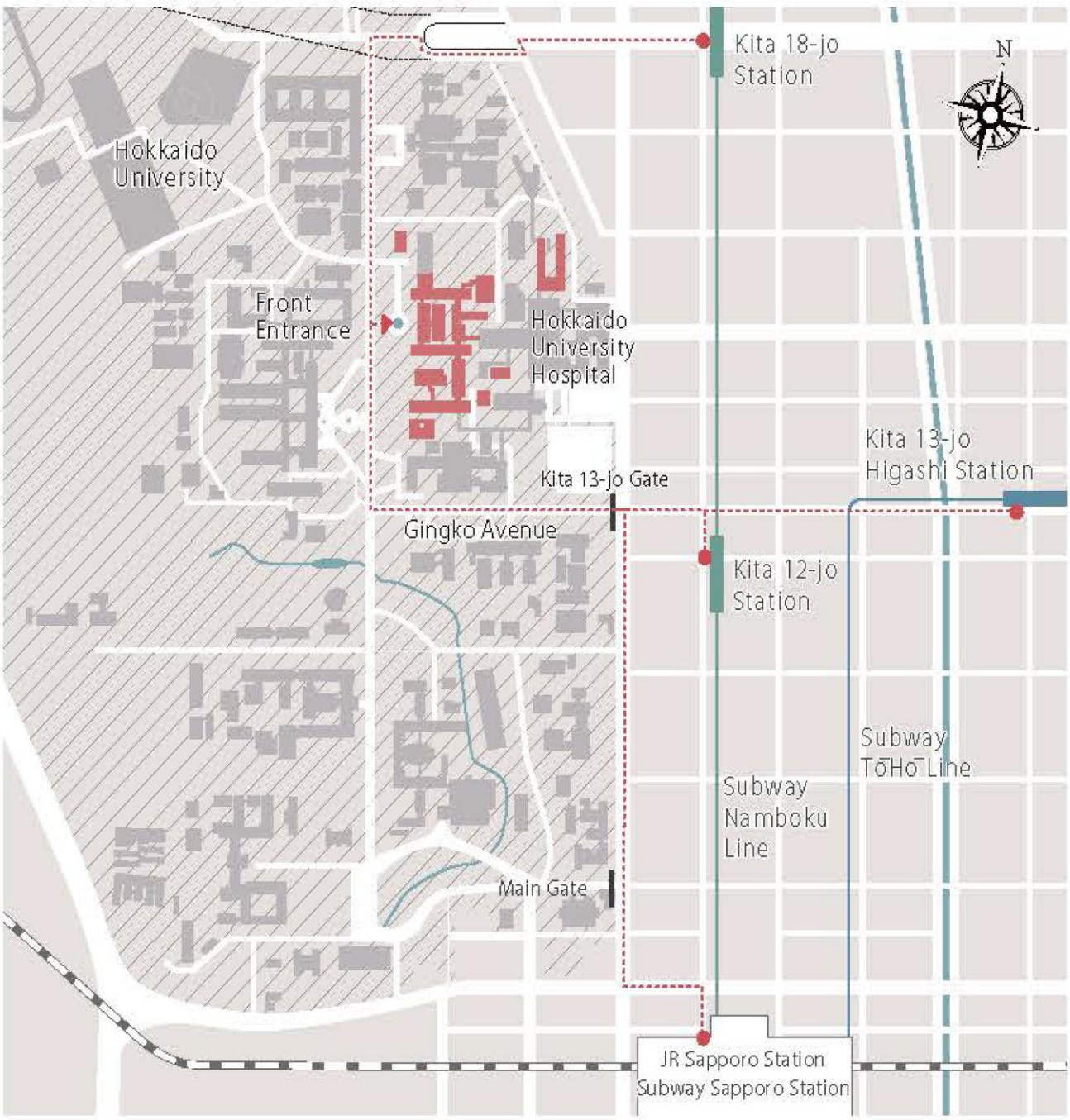
1. Chairs of oral sessions are requested to be seated at "Next Chair's Seat" at least 10 minutes prior to the start time. Please note that there will be no opening announcement. Chairs are asked to start the session at their own discretion.

2. Chairs of poster sessions are requested to stand in front of the first poster panel of their session at least 5 minutes prior to the start time. Please note that there will be no opening announcement. Chairs are asked to start the session at their own discretion.

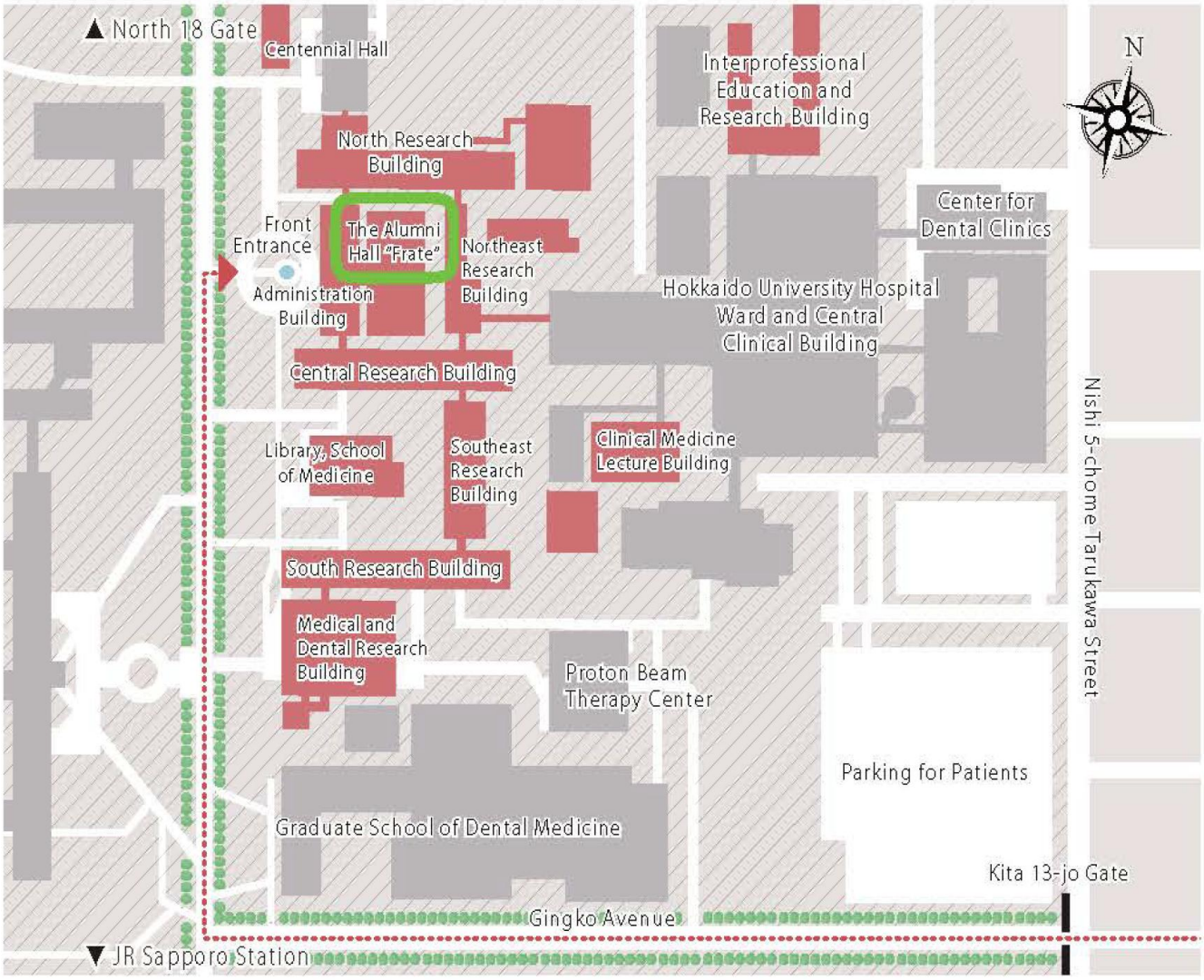
3. Your punctuality and adherence to the time limits for presentations and question-and-answer sessions would be appreciated.

Venue

●Access to Hokkaido University



●Access Inside the Campus



MEMO

Timetable

	Oral Presentation Room	Poster Room	
	1F	1F	
	Hall	Multipurpose Room	
8:00			8:00
		8:00～9:00 **Poster Preparation**	
	8:30～8:35 **Opening**		
9:00	8:35～9:50 **Pancreatic Tumor Innovation Session** Cutting-Edge Chemotherapy, Multimodal Surgical Care, and Cystic Pancreatic Neoplasms		9:00
		9:00～14:30 **Poster Viewing**	
10:00	9:50～10:40 **Biliary Tumor Innovation Session** Practical Drainage Strategies and Translational Advances in Biliary Cancer		10:00
11:00		10:50～11:40 **Poster Session 1 ~ 6**	11:00
12:00	11:50～12:50 **Lucheon Seminar** Minimally Invasive Hepato-Biliary-Pancreatic Surgery: Present, Past, and Future Sponsored by Covidien Japan Inc.		12:00
13:00		13:00～13:50 **Poster Session 7 ~ 11**	13:00
14:00	14:00～14:40 **GI Surgery Innovation Session** Frontline Advances in Device Applications for Minimally Invasive Surgery (MIS): Insights from the Field Sponsored by Johnson&Johnson		14:00
15:00	14:50～15:35 **Liver Tumor Innovation Session** State-of-the-Art Liver Tumor Control: Robotic Hepatectomy and Advanced Radiation Therapy	14:30～15:30 **Poster Removal**	15:00
16:00	15:45～15:50 **Closing**		16:00
17:00			17:00

Program

■Pancreatic Tumor Innovation Session

Cutting-Edge Chemotherapy, Multimodal Surgical Care, and Cystic Pancreatic Neoplasms

February 27 (Fri.) 8:35-9:50

Chair：Kyoichi Takaori (Nagahama City Hospital)

PS-1 **Too Many Cysts, Too Few Answers – Modern Management and the Biology of Pancreatic Cysts**

Ajay Maker
University of California San Francisco (UCSF)

PS-2 **The cutting edge of chemotherapy for pancreatic cancer, including perioperative treatment**

Yasuyuki Kawamoto
National Cancer Center Hospital

PS-3 **Contemporary surgical and perioperative management of localized pancreatic cancer**

Flavio Rocha
OHSU Knight Cancer Institute

■Biliary Tumor Innovation Session

Practical Drainage Strategies and Translational Advances in Biliary Cancer

February 27 (Fri.) 9:50-10:40

Chair: Hiroyuki Isayama (Department of Gastroenterology, Graduate School of Medicine, Juntendo University)

BS-1 **Progress and cutting edge of endoscopic biliary stenting**

Masaki Kuwatani
Hokkaido University

BS-2 **Bedside to bench and back: How we are making progress in the treatment of biliary cancer**

John Primrose
University of Southampton, UK

■Poster Session 1

February 27 (Fri.) 10:50-11:40

Chair: Ajay Maker (University of California San Francisco (UCSF))

P1-1 **Development of cancer immunotherapies targeting mutant KRAS neoantigens**
Yu Ishii
Laboratory of Immunogenomics, Center for Intractable Diseases and ImmunoGenomics, National Institutes of Biomedical Innovation, Health and Nutrition

P1-2 **Chemotherapy duration correlates with favorable histological tumor regression patterns for R0 resection in biliary tract cancer.**
Norihiro Takaoka
Department of Gastroenterological Surgery II, Hokkaido University Faculty of Medicine, Sapporo, Japan

P1-3 **Comparison of Nationwide Gastrointestinal Surgical Volumes in Japan: Implications from Publicly Available NCD and NDB Open Data**
Masakazu Fujii
Department of Gastroenterological Surgery II, Faculty of Medicine, Hokkaido University

P1-4 **Cadaver-Based Trauma Surgery Training for Lifelong Surgical Education: Outcomes of the Hokkaido University C-BEST Program**
Soichi Murakami
Department of Gastroenterological Surgery II, Hokkaido University Hospital, Sapporo, Japan

P1-5 **Burnout and Career-Interruption Considerations Among Gastrointestinal Surgeons in Hokkaido prefecture, Japan: A Cross-Sectional Survey Using the Burnout Assessment Tool**
Kaito Sano
Department of Gastroenterological Surgery II, Hokkaido University Faculty of Medicine

■Poster Session 2

February 27 (Fri.) 10:50-11:40

Chair: Aya Matsui (Department of Gastroenterological surgery II, Hokkaido University Faculty of Medicine)

P2-1 **Delayed intramesenteric perforation after colonoscopy through a colostomy: a case report**
Yoshitomo Ashitate
Department of Surgery, Urakawa Red Cross Hospital, Hokkaido, Japan

P2-2 **Laparoscopic approach in the surgical treatment of large retrorectal tumors: a short-term experience at a single tertiary center case series in Korea**
JAE KYUN JU

Department of Surgery, Chonnam National University, Gawngju, Korea

P2-3 **A Case of Enterocolic Lymphocytic Phlebitis of the Descending Colon Requiring Surgical Resection for Inflammatory Stenosis**
Kentaro Kumagai
Department of Surgery, Kushiro Municipal Hospital, Kushiro, Sapporo

P2-4 **A case of medullary carcinoma of the ascending colon with BRAF mutation and MSI-High**
Hiroki Niwa
Department of Surgery, NHO Hakodate Medical Center, Hakodate, Hokkaido, Japan

P2-5 **Discrepancy Between Morphological Residual Disease and Histological pCR: A Case Report of Pathological Complete Response to Pembrolizumab in dMMR Colorectal Cancer with Liver Metastases**
Kohei Ito
Department of Gastroenterological Surgery I, Hokkaido University, Sapporo, Japan

P2-6 **A case of hepatic echinococcosis associated with liver metastasis from colon cancer**
Masato Ono
Department of Surgery, Nakashibetsu Municipal Hospital, Nakashibetsu, Japan

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■Poster Session 3

February 27 (Fri.) 10:50-11:40

Chair: Flavio Rocha (OHSU Knight Cancer Institute)

P3-1 **Reassessing the Real-World Effectiveness of Neoadjuvant Gemcitabine plus S-1 as the Standard Approach for Resectable Pancreatic Head Cancer**
Kotaro Kimura
Department of Surgery, Teine Keijinkai Hospital, Hokkaido, Japan

P3-2 **Role of preoperative circulating tumor DNA in predicting occult metastases in resectable and borderline resectable pancreatic ductal adenocarcinoma**
Takeshi Murakami
Department of Surgery, division of Gastroenterological Surgery, Sapporo Medical University, Sapporo, Japan

P3-3 **Status of lymph node metastasis and efficacy of lymph node dissection along the superior mesenteric artery in pancreatic head cancer**
Isamu Makino
Department of Hepato-Biliary-Pancreatic Surgery and Transplantation, Kanazawa University, Kanazawa, Japan

P3-4 **A Case of a Giant Pancreatic Neuroendocrine Tumor Resected after Preoperative Chemotherapy and Transarterial Embolization**
Kokoro Niwa
Department of Gastroenterological Surgery II, Hokkaido University Faculty of Medicine, Sapporo, Japan.

P3-5 **A case of mixed acinar-neuroendocrine-ductal carcinoma arising from a gastric duplication cyst**

Yoshihito Shinohara
Department of Gastroenterological Surgery, Obihiro Kosei Hospital, Obihiro, Japan

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■Poster Session 4

February 27 (Fri.) 10:50-11:40

Chair: Teiichi Sugiura (Shizuoka Cancer Center)

P4-1 **A Retrospective Study Comparing nal-IRI plus 5-FU/LV and Modified FOLFIRINOX as Second-Line Chemotherapy Following Gemcitabine plus nab-Paclitaxel in Pancreatic Cancer**

Takumi Okuaki
Department of Gastroenterology, Graduate School of Medicine, University of Juntendo, Tokyo, Japan.

P4-2 **Prognostic Value of the Japanese Modified Glasgow Prognostic Score in Very Elderly**

Tomoya Takahashi
Department of Gastroenterology, Graduate School of Medicine, Juntendo University, Tokyo, Japan

P4-3 **Utility of Preceding Splenic Mobilization using SUTCHEY Technique in Minimally Invasive Distal Pancreatectomy**

Ryo Takeda
Department of Digestive Surgery, Kyoto Prefecture University of Medicine

P4-4 **Spleen-Preserving Distal Pancreatectomy Using the Warshaw Technique for Pancreatic Body Cancer: Feasibility and Oncological Outcomes**

Masataka Wada
Department of Gastroenterological Surgery Ⅱ Hokkaido University, Sapporo, Japan

P4-5 **Hepatobiliary Scintigraphy? Guided Management of Post-Pancreaticoduodenectomy Cholangitis**

Hiroki Ueda
Department of Hepatobiliary and pancreatic surgery, Institute of Science Tokyo, Tokyo, Japan

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■Poster Session 5

February 27 (Fri.) 10:50-11:40

Chair: Toshimichi Asano (Department of Gastroenterological surgery II, Hokkaido University Faculty of Medicine)

P5-1 **Clinical outcomes of endoscopic ultrasound-guided ethanol ablation for pancreatic neuroendocrine tumors**

Katsuma Nakajima
Department of Gastroenterology and Hepatology, Hokkaido University Graduate School of Medicine

P5-2 **Validity of Newly Defined Tumor Location–Based Regional Lymph Nodes and Implications for Treatment Strategies in Pancreatic Cancer**
Rie Shibata
Division of Digestive Surgery, Department of Surgery, Kyoto Prefectural University of Medicine

P5-3 **Long-term outcomes and recurrence patterns after conversion surgery for unresectable pancreatic cancer**
Katsuhisa Ohgi
Division of Hepato-Biliary-Pancreatic Surgery, Shizuoka Cancer Center, Shizuoka, Japan

P5-4 **A fatal case with hepatic lymphorrhea?related massive ascites after conversion surgery for M1 (LYM) pancreatic tail cancer treated with lymphatic embolization**
Haruyoshi Tanaka
Department of Surgery, Nagoya University Hospital, Nagoya, Japan

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■Poster Session 6

February 27 (Fri.) 10:50-11:40

Chair: Yoichi Kawano (Department of Gastrointestinal Surgery, Nippon Medical School, Tokyo, Japan)

P6-1 **Surgical resections for hepatocellular carcinomas arising from Fontan-associated liver disease; open, laparoscopic and robotic hepatectomies**
Takashi Motomura
Department of Surgery and Sciences, Kyushu University, Fukuoka, Japan

P6-2 **Evaluation of the geographic distribution of patients with hepatocellular carcinoma and treatments in Japan using data from the Japanese national database**
Takashi Kokudo
National Center for Global Health and Medicine, Tokyo, Japan

P6-3 **Clinical significance of adding THAD and pneumobilia to the TG18 criteria for diagnosing postoperative cholangitis after biliary reconstruction**
Kimitaka Tanaka
Department of Gastroenterological surgery II, Hokkaido University Faculty of Medicine

P6-4 **Preoperative risk stratification of distal cholangiocarcinoma using tumor size and CA19-9**
Shimpei Otsuka
Division of Hepato-biliary-pancreatic Surgery, Shizuoka Cancer Center, Shizuoka, Japan

P6-5 **Surgical outcomes of eight cases of intracholecystic papillary neoplasm**
Mayuko Ohara
Department of Surgery, National Defense Medical College

■Luncheon Seminar

February 27 (Fri.) 11:50-12:50
Sponsored by Covidien Japan Inc.

Chair: Satoshi Hirano (Department of Gastroenterological Surgery II, Hokkaido University Faculty of Medicine)

LS **Minimally Invasive Hepato-Biliary-Pancreatic Surgery: Present, Past, and Future**
Go Wakabayashi
Department of Surgery Ageo Central General Hospital

■Poster Session 7

February 27 (Fri.) 13:00-13:50

Chair: Ali Khaki (Samaritan North Lincoln Hospital)

P7-1 **Internal hernia between the left external iliac artery and vein after surgery for endometrial carcinoma: a case report**
Yoshitomo Ashitate
Department of Surgery, Urakawa Red Cross Hospital, Hokkaido, Japan

P7-2 **Successful Resection of a Large Second-Portion Duodenal Tumor Using Duodenal Laparoscopic and Endoscopic Cooperative Surgery (D-LECS): A Case Report**
Saseem Poudel
Department of Gastroenterological Surgery II, Hokkaido University, Sapporo, Japan

P7-3 **Outcomes of Oblique Jejunogastrostomy in Double-Tract Reconstruction after Laparoscopic Proximal Gastrectomy**
Hironobu Takano
Department of Gastroenterological Surgery II, Faculty of Medicine, Hokkaido University, Sapporo, Japan

P7-4 **Treatment Selection in Iatrogenic Esophageal Perforation A single-center experience**
Yuki Itagaki
Department of Gastroenterological Surgery II, Faculty of Medicine, Hokkaido University

P7-5 **A Case of Primary Pancreatic Carcinosarcoma**
Daisuke Sato
Department of Gastroenterological Surgery, Hokkaido Gastroenterology Hospital, Sapporo, Japan

■Poster Session 8

February 27 (Fri.) 13:00-13:50

Chair: Eduardo Vega (Boston University, Boston Medical Center Brighton, Boston, MA)

P8-1 **The Effect of Preoperative Biliary Stent placement and Prophylactic Antibiotics Administration on Pancreatic Fistula**
Yuta Toji
Department of Gastroenterological Surgery II, Hokkaido University Faculty of Medicine

P8-2 **Clinical Significance of Preoperative Serum Carbohydrate Antigen 19-9 Levels as a Marker of Biological Borderline Resectable Perihilar Cholangiocarcinoma**
Yoshitsugu Nakanishi
Department of Gastroenterological Surgery II, Hokkaido University Faculty of Medicine, Sapporo, Japan

P8-3 **Three Cases of Gallbladder Hemorrhage Treated by Cholecystectomy**
Ryo Okazaki
Japanese Red Cross Kitami Hospital

P8-4 **Surgical Safety after Preoperative Chemotherapy for Perihilar Cholangiocarcinoma: Multi-Institutional Propensity-Matched Analysis**
Takehiro Noji
Hokkaido University Hospital Gastroenterological Surgery II

P8-5 **Three Cases of Jejunal Perforation Following Billroth II Gastrojejunostomy with Braun Anastomosis**
Tomomi Sato
Department of Gastroenterological Surgery Ⅱ, Hokkaido University Faculty of Medicine, Sapporo, Japan

P8-6 **Conversion surgery after intraperitoneal paclitaxel combined with systemic chemotherapy for 8 patients with pancreatic ductal adenocarcinoma positive for peritoneal metastasis**
Sho Sekiya
Department of Surgery, Tonan Hosiptal, Sapporo, Japan

■Poster Session 9

February 27 (Fri.) 13:00-13:50

Chair: Soichi Murakami (Department of Gastroenterological surgery II, Hokkaido University Faculty of Medicine)

P9-1 **Small Bowel Obstruction Caused by a Foreign Body in an Adult with Intestinal Malrotation Requiring Reoperation**
Kenichi Mizunuma
Departmento of Surgery, Oji general hospital, Tomakomai, Japan

P9-2 **Necrotizing Ischemic Colitis with Extensive Colonic and Secondary Small Bowel Necrosis Requiring Two Emergency Surgeries: A Case Report**
Shinji Sekizawa
Department of Surgery, Asahikawa City Hospital

P9-3 **A Case of Solitary Fibrous Tumor (SFT) with Tumor Rupture During Surgical Waiting Period**

Atomu Kiriyama
Hokkaido University Graduate School of Medicine Department of Gastroenterological Surgery II

P9-4 **Solitary gluteal subcutaneous metastasis after curative resection of cecal cancer: a rare presentation preceding systemic metastasis**

Shusaku Hiyama
Department of Gastroenterological Surgery I, Graduate School of Medicine, Hokkaido University, Sapporo, Hokkaido, Japan

P9-5 **Doege-Potter Syndrome Caused by a Giant Solitary Fibrous Tumor of the Greater Omentum**

Tomoki Takizawa
Division of Hepato-Biliary-Pancreas and Transplantation, Gastrointestinal Surgery, Department of Surgery, Asahikawa Medical University, Asahikawa City

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■Poster Session 10

February 27 (Fri.) 13:00-13:50

Chair: Nuh Rahbari (University Medical Center Ulm)

P10-1 **Comparison of initial phase of learning curve Between Robot-Assisted and Laparoscopic Surgery for Novice Surgeons: a scoping review**

Akitaka Motoyoshi
Department of Gastroenterological Surgery II, Hokkaido University Graduate School of Medicine, Sapporo, Japan.

P10-2 **Pitfalls in Segment 7 Resection Focusing on the Course of the Ventral Branch of the Right Posteroinferior Portal Vein (P6a) and Portal Vein Branching Patterns**

Gakushi Kitamura
Division of Digestive Surgery, Department of Surgery Kyoto Prefectural University of Medicine

P10-3 **Utility of liver surface-guided encirclement of hepatoduodenal ligament for the Pringle maneuver in minimally invasive repeat liver resection**

Yoichi Kawano
Department of Gastrointestinal Surgery, Nippon Medical School, Tokyo, Japan

P10-4 **Indocyanine green near-infrared fluorescence-guided laparoscopic hepatectomy for colorectal liver metastases**

Toru Kato
Department of Surgery, Division of Gastroenterological Surgery, Sapporo Medical University

P10-5 **Technical Refinement of Robot-Assisted Warshaw Spleen-Preserving Distal Pancreatectomy Through Systematic Preservation of Splenic Collateral Pathways**

Shintaro Takeuchi
Department of Gastroenterological Surgery II, Hokkaido University, Sapporo, Japan

P10-6 **Preoperative Tumor Thrombus Occupation Rate as a Practical Indicator for Selecting Vascular Control in Hepatocellular Carcinoma with Inferior Vena Cava Tumor Thrombus**

Hayato Hosoi
Department of Surgery, Hakodate Medical Association Hospital

■Poster Session 11

February 27 (Fri.) 13:00-13:50

Chair: Toshiaki Shichinohe (Department of Gastroenterological surgery II, Hokkaido University Faculty of Medicine)

P11-1 **Outcome of Adjuvant therapy for Esophageal Cancer by Nivolumab in our institute**

Tomonori Nakanoko
Surgery and Science, Kyushu University

P11-2 **Characteristics and prognosis according to tumor location in esophageal squamous cell carcinoma**

Daegon Ryu
Department of Internal Medicine, Pusan National University School of Medicine, Pusan, South Korea

P11-3 **Usefulness of 18F-fluorodeoxyglucose positron emission tomography for T1 esophageal squamous cell carcinoma**

Daegon Ryu
Department of Internal Medicine, Pusan National University School of Medicine, Pusan, South Korea

P11-4 **Preoperative Diagnosis of Gastric Glomus Tumor Enabling Minimally Invasive Wedge Resection: A Case Report**

Kentaro Sato
Department of Gastroenterological Surgery Ⅱ, Hokkaido University, Faculty of Medicine, Sapporo, Japan

P11-5 **Surgical Technique and Clinical Outcomes of Enucleation for Benign Esophageal Tumors at Our Department**

Mamoru Takahashi
Department of Gastrointestinal Surgery, Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan

■GI Surgery Innovation Session

Frontline Advances in Device Applications for Minimally Invasive Surgery (MIS): Insights from the Field

February 27 (Fri.) 14:00-14:40
Sponsored by Johnson&Johnson

Chair: Takayuki Anazawa (Department of Surgery, Sapporo Medical University)

GS-1 **Robotic Surgery for Gastric Cancer: Where We Are, What We Gain, and How We Sustain It**

Hideyuki Wada
Department of Gastroenterological Surgery II, Division of Surgery, Faculty of Medicine, Graduate School of Medicine, Hokkaido University

GS-2 **Collaborative Innovation in Colorectal Cancer Surgery- Robotic Fusion Surgery and taTME**

Koichi Teramura
Department of Surgery, Tonan Hospital

■Liver Tumor Innovation Session

State-of-the-Art Liver Tumor Control: Robotic Hepatectomy and Advanced Radiation Therapy

February 27 (Fri.) 14:50-15:35

Chair: Ali Khaki (Samaritan North Lincoln Hospital)

LTS-1 **Modern Radiation Therapy for Primary Liver Cancer**

Norio Katoh
Department of Radiation Oncology, Hokkaido University Faculty of Medicine

LTS-2 **Robotic anatomic hepatectomy**

Nuh Rahbari
University Medical Center Ulm

PS-1 Too Many Cysts, Too Few Answers – Modern Management and the Biology of Pancreatic Cysts

Ajay V. Maker MD, FACS, FSSO

Pancreatic cysts are increasingly common, yet our ability to distinguish lesions that warrant intervention from those that do not remains limited. In this talk, I will integrate population-level prevalence data from whole-body MRI screening, molecular profiling of cyst fluid, and spatial and single-cell analyses of resected IPMN to illustrate why "too many cysts" has translated into "too few answers" for patients and clinicians. Using data from our prevalence study, we show that pancreatic cysts are far more common than clinically appreciated, underscoring the impossibility of managing these lesions with surveillance and surgery alone. We then present results from our current research demonstrating that cyst fluid transcriptional signatures capture biologically meaningful features of IPMN, including dysplasia-associated inflammatory and epithelial programs that reflect the underlying tumor immune microenvironment. Further, building on our prior work published in The Lancet Gastroenterology & Hepatology, we highlight how progressive IPMN dysplasia is marked not only by epithelial change, but by coordinated remodeling of immune and stromal compartments that precedes invasion. Together, these data argue for biologically informed, microenvironment-aware diagnostics that can rule out low-risk disease, reduce overtreatment, and align intervention with true malignant potential.

Dr. Maker is an international leader in surgical oncology serving as the Surgeon-In-Chief at the UCSF Helen Diller Family Comprehensive Cancer Center, Maurice Galante Distinguished Professor, and Chief of Surgical Oncology at the University of California San Francisco. He graduated from Brown University with dual degree honors in Biology and Fine Arts, followed by an M.D. from Yale University where he received the Gold Medal in Surgery. His extensive training includes residency at Brigham and Women's Hospital of Harvard Medical School and fellowships at the NIH, Memorial Sloan Kettering Cancer Center, and the University of Paris. He completed postdoctoral studies in tumor immunology at the National Cancer Institute under Dr. Steven Rosenberg that included clinical trials leading to approval by the FDA of Ipilimumab as a new treatment for metastatic cancer. Prior to joining UCSF, he was a tenured professor at the University of Illinois at Chicago where he was Director of Surgical Oncology for the Creticos Cancer Center.

At UCSF, Dr. Maker has spearheaded multidisciplinary approaches to cancer care. Under his leadership, significant milestones have been achieved in patient access, outreach, ambulatory surgery center utilization, patient outcomes, revenue, and federally-funded research. As Chief of Surgical Oncology, he oversees 40 faculty in the largest Division in the Department. The Division also involves over 50 nurses, assistants, physician extenders, and administrators in clinical operations. This is in addition to his role as Surgeon-In-Chief of the UCSF Comprehensive Cancer Center where he is engaged in strategic growth and alignment in surgical oncology care across the departments of surgery, otolaryngology, gynecology, orthopedics, and urology. His dedication to nurturing the next generation of surgical oncologists is reflected in his active role in academic mentoring, clinical teaching awards, and his recognition for outstanding mentorship in student research at UCSF.

Dr. Maker is considered an expert in the surgical care of patients with complex hepatopancreatobiliary malignancies, and he has been named numerous times to Castle Connolly's Top Doctors and Top Doctors for Cancer lists. He has aligned the efforts of his research career on expanding the role of immunotherapy for colorectal liver metastases and in establishing biomarkers of malignancy for pancreatic cystic lesions. He is the principal investigator on federal grants awarded NIH and Department of Defense, including the prestigious NCI MERIT award. He has published more than 300 manuscripts, abstracts and book chapters, and he lectures nationally and internationally having delivered over 150 invited talks and 26 national and international Visiting Professorships. He serves on multiple editorial boards, NIH study sections, holds leadership positions in academic and scientific societies, serves as an examiner for the American Board of Surgery, and has been honored with the Society of Surgical Oncology's Clinical Investigator Award. He is a past program chair of the AHPBA, and is the current SSAT Hepatobiliary program chair and DDW Biliary Track chair. In his spare time he enjoys spending time with his wife and three boys, training for triathlons, mountain trekking, adventure photography, and the arts.

PS-2 The cutting edge of chemotherapy for pancreatic cancer, including perioperative treatment

Yasuyuki Kawamoto, Chigusa Morizane, Takuji Okusaka

National Cancer Center Hospital

Pancreatic ductal adenocarcinoma (PDAC) remains one of the most lethal malignancies worldwide, characterized by aggressive tumor biology and a high rate of early recurrence. Despite advances in surgical techniques, systemic chemotherapy plays a central role in improving survival outcomes across all disease stages. For patients with unresectable or metastatic PDAC, combination chemotherapy has become the standard of care. Regimens such as FOLFIRINOX and gemcitabine plus nab-paclitaxel have demonstrated superior overall survival compared with gemcitabine monotherapy, although patient selection based on performance status is essential due to increased toxicity. In the second-line setting, liposomal irinotecan combined with fluorouracil and leucovorin has been established as an effective option. In parallel, molecularly targeted therapies are under active investigation, including KRAS inhibitors, which address the high prevalence of KRAS mutations in PDAC. While clinical efficacy remains limited to selected subgroups, these agents represent an important step toward precision oncology.

Perioperative chemotherapy has recently emerged as a promising strategy for resectable and borderline resectable PDAC. Traditionally, upfront surgery followed by adjuvant chemotherapy was the standard approach; however, postoperative treatment completion rates are often suboptimal due to surgical morbidity. Neoadjuvant chemotherapy offers several potential advantages, including early treatment of micrometastatic disease, improved R0 resection rates, and biological selection of patients most likely to benefit from surgery. In Japan, neoadjuvant gemcitabine plus S-1 has demonstrated improved survival compared with surgery-first strategies in resectable PDAC. In Western countries, modified FOLFIRINOX is increasingly used in both neoadjuvant and adjuvant settings, particularly for fit patients.

Adjuvant chemotherapy remains essential even after successful resection. S-1 monotherapy is widely used in East Asia, whereas modified FOLFIRINOX has shown superior survival outcomes in selected populations. Ongoing clinical trials are evaluating optimized perioperative regimens, including intensified combination therapies and novel agents.

The management of pancreatic cancer is shifting toward a multidisciplinary, perioperative treatment paradigm. Advances in systemic chemotherapy and the integration of neoadjuvant approaches are gradually improving outcomes. Future progress will depend on biomarker-driven treatment selection and the development of more effective targeted therapies.

Dr. Kawamoto is a medical oncologist at the Hepatobiliary and Pancreatic Oncology Division, National Cancer Center Hospital Japan, Tokyo, Japan. He graduated from the Hokkaido University School of Medicine in 2004. After completing training at Hokkaido University Hospital and general hospitals in Hokkaido, he completed a fellowship in medical oncology at National Cancer Center Hospital East, Kashiwa, Japan. He graduated from the Hokkaido University Graduate School of Medicine in 2012 and completed PhD. He worked as a medical oncologist specializing in hepatobiliary and pancreatic cancer at Hokkaido University Hospital for ten years from 2015 to 2025, serving as an assistant professor. He moved to the National Cancer Center Hospital Japan in 2025 and continues to work as a specialist in medical oncology for hepatobiliary and pancreatic tumors. He is a diplomate and faculty of Subspecialty Board of Medical Oncology, Japanese Society of Medical Oncology. He is an active member of American Society of Clinical Oncology (ASCO) and European Society for Medical Oncology (ESMO).

He has been funded by the Grants-in-Aid for Scientific Research in Japan and the grants from Japan Agency for Medical Research and Development. He currently serves as the representative committee member of the Hepatobiliary and Pancreatic Oncology Group of the Japan Clinical Oncology Group (JCOG). He is a member of Review Board (HBP Medicine) of the Japanese Journal of Clinical Oncology.

PS-3 Contemporary surgical and perioperative management of localized pancreatic cancer

Flavio Rocha

OHSU Knight Cancer Institute

No Abstracts

Dr. Rocha is the Hedinger Professor and Chair of Surgical Oncology at Oregon Health and Science University (OHSU) in Portland, OR. He also serves as the Physician-in-Chief of the Knight Cancer Institute at OHSU. He graduated with honors from the University of Chicago Pritzker School of Medicine. After training in general surgery at the Brigham and Women's Hospital and Harvard Medical School in Boston, he completed both a surgical oncology and hepatopancreatobiliary surgery fellowship at Memorial Sloan-Kettering Cancer Center in New York City. He spent ten years practicing at Virginia Mason Medical Center in Seattle where he held several roles including the Associate Cancer Center Director and Director of Research in the Digestive Disease Institute prior to moving to Oregon in 2021. Dr. Rocha's clinical practice encompasses all aspects of benign and malignant disease of the liver, bile ducts and pancreas. He has been funded by the NIH/NIDDK, ASCO and the Cholangiocarcinoma Foundation. Dr. Rocha currently sits on the editorial boards of Surgery, HPB and as an Associate Editor for Annals of Surgical Oncology and Journal of Surgical Oncology. He has served on the NCI Pancreas Task Force, ASCO Gastrointestinal Cancers Advisory Council and ASTRO Liver Cancer Guidelines Committee. He is a member of the Scientific and Medical Advisory Board of the International Cholangiocarcinoma Research Network (ICRN) as the surgical lead and the Gallbladder Cancer Foundation. On the national level, he is the Vice-Chair of the Southwest Oncology Group (SWOG) Surgery Committee, GI Surgery Working Group Chair at Eastern Cooperative Group (ECOG-ACRIN) and Chair of the Cancer Standards Development Committee at the American College of Surgeons.

MEMO

BS-1 Progress and cutting edge of endoscopic biliary stenting

Masaki Kuwatani[1], Ryo Sugiura[1], Kazumichi Kawakubo[1], Yoshitsugu Nakanishi[2], Takehiro Noji[2], Satoshi Hirano[2], Naoya Sakamoto[1]

[1] Department of Gastroenterology and Hepatology, Hokkaido University Hospital
[2] Department of Gastroenterological Surgery II, Hokkaido University Hospital

Pancreaticobiliary diseases, whether benign or malignant, frequently present with strictures of the biliary tract. This often necessitates biliary tract drainage tailored to the specific pathology/situation, and occasionally requires management of strictures arising in the adjacent duodenum.

In cases of benign strictures, there are ongoing debates regarding stent placement duration, the appropriateness of using metallic stents, and the timing for transitioning to percutaneous drainage or surgical drainage. Recently, new techniques have also been introduced for anastomotic strictures following pancreaticobiliary surgery, including balloon endoscopy-guided anastomotic stricture dilation and stent placement, as well as endoscopic ultrasound-guided stent placement.

Meanwhile, in cases of malignant strictures, achieving long-term stent patency has long been the most critical challenge, leading to the development of stents with various manufacturing methods and configurations. For the hilar biliary obstruction, various drainage options exist, including stent-in-stent/side-by-side method, unilateral/bilateral drainage, across-the-papilla/above-the-papilla stent placement, and plastic/metal stents. Additionally, various techniques have also been developed for endoscopic ultrasound-guided drainage. In the distal biliary obstruction, in addition to the debate on the across-the-papilla versus above-the-papilla stent placement, there has been the issue of selecting uncovered, partially covered, or fully covered metal stents.

The ability to eliminate the impact of food residue and secure larger stent diameters in the across-the-papilla stent placement is key to long-term stent patency. Reports on metal stents with anti-reflux valves/mechanisms and large-diameter metal stents are also emerging. On the other hand, the issue of acute pancreatitis associated with metal stent placement cannot be overlooked. Preoperative chemotherapy for biliary tract cancer is not yet standard practice, but it may be necessary to consider the optimal biliary drainage approach under such circumstances in the future. When malignant biliary stricture is accompanied by malignant duodenal stricture, it is difficult to select the best treatment because no guidelines exist for determining the appropriate biliary approach and drainage strategy.

This lecture will provide an overview of the current status of biliary stenting based on clinical trial results and the evidence derived from them, along with the latest related topics. It will also explain the actual procedure, covering fundamentals to advanced applications, using videos for demonstration.

Masaki Kuwatani, M.D., Ph.D.
Associate professor
Department of Gastroenterology and Hepatology
Hokkaido University Hospital

Education:

Apr 1992-Mar 1998, Hokkaido University School of Medicine
Apr 2003-Mar 2005, National Cancer Center Research Institute (Tokyo)
Apr 2002-Mar 2006, Hokkaido University Graduate School of Medicine

Employment history:

Apr 1998-Mar 1999, Hokkaido University Hospital, resident
Apr 2000-Mar 2001, Hakodate City General Hospital, attending staff
Apr 2001-Mar 2002, Abashiri-Kosei General Hospital, attending staff
Apr 2002-Mar 2003, NTT East Sapporo Hospital, attending staff
Apr 2005-May 2008, Hokkaido University Hospital, attending staff
May 2008-Jun 2021, Hokkaido University Hospital, assistant professor
Jul 2021- Incumbent

Specialty:

Dr. Kuwatani graduated from Hokkaido University and has been engaged in clinical practice and researches in the pancreaticobiliary field as both a physician and endoscopist over 20 years. During the period, he participated in many clinical trials regarding endoscopic retrograde cholangiopancreatography (ERCP) and endosonography-guided fine-needle aspiration (EUS-FNA), and performed some randomized controlled trials as a principal investigator for CO_2 vs. air insufflation during ERCP, antispasmodics during EUS/EUS-FNA, endoscopic sphincterotomy for prevention of post-ERCP pancreatitis, preoperative biliary metal stent and so on. Currently, his team can perform EUS-guided ethanol infection therapy for a small PNEN as private practice at Hokkaido University Hospital. He has published many peer-reviewed international and domestic articles.

BS-2 Bedside to bench and back: How we are making progress in the treatment of biliary cancer

Prof J.N. Primrose, Professor of Surgery, University of Southampton, UK

Biliary cancer has, in past years, been regarded as "Cinderella" specialty with poor surgical outcomes and little pharma interest. In the last decade this had changed radically. Phase 3 trials in the adjuvant and advanced setting, mostly in the UK and Japan, have established a standard of care in the adjuvant, advanced first line and advanced second line setting. These studies with a "trial, blood, block" principle have allowed molecular profiling of tumors along with detailed clinical outcomes. Parallel studies on targetable mutations especially in iCCA have identified potential benefit in many patients with small molecule inhibitors. However, the problem in non-randomized trials is that that it is unclear if such mutations are prognostic in their own right, rendering interpretation difficult. Molecular analyses in BILCAP has demonstrated that the "druggable" mutations such as FGFR rearrangements and IDH1 mutations convey no overall survival benefit hence support their utility in clinical practice. Such studies have also identified other potential targets with a negative prognostic influence such as EGFR over-expression. Immuno-chemotherapy has been demonstrated to be effective to a degree in advanced inoperable disease, but the benefit is small and these agents are not funded in many countries. Its role as adjuvant is being investigated as is the use of Gem-Cis v capecitabine in an international trial, the results of which are being presented at ASCO 2026. Other treatment strategies such as liver transplantation and the use of hepatic artery pump chemotherapy have a small role in the management of iCCA but trials are needed to establish the exact benefit.

Undergraduate
University of Glasgow, 1972-1977

Postgraduate
Surgical training posts in West of Scotland 1977-1984
Senior Lecturer/Consultant Surgeon, University of Leeds, UK

Current Post and Recent Roles
Professor of Surgery, University of Southampton (from 1993).
Fellow, Academy of Medical Sciences,
Member Academia Europea 2021
Honorary Professor University of Glasgow (from 2018)
J.C. Thoroughman Visiting Professor, Emory University, Atlanta (2018)
Chair, Research Committee, IHPBA (2022-date)
Director, NIHR Wessex Clinical Research Network (2007-17)
NIHR Senior Investigator (2016-2021)
Chair, NCRI Upper GI Clinical Studies Group (2012-17)
Chair NICE Guidelines Committee on Pancreatic Cancer (2016-18)
Chair NICE Guidelines Committee on Barrett's Oesophagus (2021-2023)
Chair Deutsche Krebshilfe (German Cancer Aid) Translational Committee (2017-date)
President, Association of Surgeons of Great Britain and Ireland (2013 and 2014)
Member, Medical Research Council Career Development Committee (2019-2024)
Chair, Precision Panc Scientific Advisory Board (2018-date)
Editor in Chief, Oxford Textbook of General Surgery.
NIHR Southampton Biomedical Research Centre, Perioperative Medicine Lead, 2022- date
Research Excellence Framework 2029 Committee Panel 1, Clinical Medicine, 2025- date)

Clinical Practice
Senior Surgeon in HPB Service at University Hospital Southampton, a large regional centre.

Research Interests
Clinical trials and translational research in gastrointestinal cancer, changed global practice in 3 key areas. Chief Investigator of 7 national and international trials in gastrointestinal cancer.

Recent grant income
Multiple, including NIHR Biomedical Research Centre Award (Co Applicant and Theme Lead), £26M, 2022

Publications
Over 240 publications, h-index 76, i10-index 188.

Luncheon Seminor

LS Minimally Invasive Hepato-Biliary-Pancreatic Surgery: Present, Past, and Future

Go Wakabayashi

Department of Surgery, Ageo Central General Hospital

No Abstracts

Go Wakabayashi, MD, PhD, FACS
Chief of Surgical Services, Deputy Director, Ageo Central General Hospital, Saitama, Japan

Dr. Go Wakabayashi earned medical degrees from Keio University School of Medicine in Tokyo, Japan. He trained in the Department of Surgery at Massachusetts General Hospital and Harvard Medical School. In 2005, he was appointed Professor and Chairman of the Department of Surgery at Iwate Medical University School of Medicine. In April 2015, he was recruited as Director of the Center for Advanced Treatment of HBP Diseases, Chief of Surgical Services, and Deputy Director at Ageo Central General Hospital, a flagship hospital in a 6,000-bed complex near Tokyo.
Dr. Wakabayashi's expertise includes hepatopancreatobiliary surgery, liver transplantation, and laparoscopic surgery. He performed the first robotic surgery in Asia in March 2000 and the first robotic hepatectomy worldwide in July 2001. He has published over 300 peer-reviewed articles and book chapters.
Dr. Wakabayashi served as President of the International Laparoscopic Liver Society from 2019 to 2021 and is now its Second-past President. He is currently the President of the Endoscopic Liver Surgery Study Group in Japan and the Vice President of the International Society for Digestive

MEMO

GS-1 Robotic Surgery for Gastric Cancer: Where We Are, What We Gain, and How We Sustain It

Hideyuki Wada, Kokoro Niwa, Yuki Itagaki, Hironobu Takano, Saseem Poudel, Takeo Nitta, Soichi Murakami, Toshiaki Shichinohe, Satoshi Hirano

Department of Gastroenterological Surgery II, Hokkaido University Faculty of Medicine

Background: Since the 2018 expansion of national insurance coverage, robotic gastrectomy (RG) has rapidly proliferated across Japan, fundamentally shifting the paradigm of minimally invasive gastric cancer surgery. While the technical advantages are well-recognized, we face emerging challenges regarding long-term sustainability. These challenges are twofold: the high procedural costs that pose a financial threat to hospital management and the national health insurance system, and the "deprivation of opportunity" for junior surgeons to master traditional techniques essential for comprehensive surgical training.

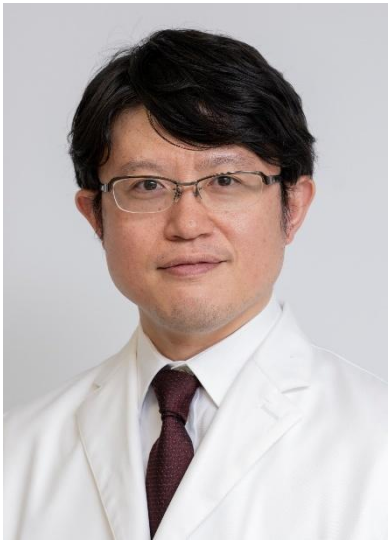
Institutional Experience: Our department has proactively integrated the robotic platform into our gastric cancer strategy. We perform robotic surgery for nearly all cases, including complex procedures such as advanced-stage and remnant gastric cancer. This "robotic-first" approach allows us to provide standardized, high-quality minimally invasive surgery even in highly demanding clinical scenarios.

Advantages and Gains: The primary gains of RG reside in its superior technical capabilities. The platform offers enhanced maneuverability through articulated instrumentation and stable, high-definition 3D visualization. These features facilitate precise dissection, meticulous lymph node clearance, and more accurate intracorporeal reconstruction even within narrow anatomical spaces. Furthermore, the ergonomic design significantly alleviates the surgeon's physical fatigue during prolonged procedures.

Challenges and Disadvantages: Despite clinical benefits, the shift toward RG has introduced significant drawbacks. Increased procedural costs from expensive robotic-specific disposables remain a major concern. Furthermore, as RG becomes the default standard, junior residents face a critical reduction in hands-on opportunities to perform traditional procedures, which are vital for developing fundamental surgical intuition and versatility.

Strategies for Sustainability: To address these challenges, we implemented two core strategies for sustainability. First, for surgical education, we utilize step-by-step training in conjunction with a dual-console system. This allows trainees to perform specific procedural modules under real-time expert supervision, ensuring patient safety while maximizing hands-on opportunities. Second, to overcome economic barriers, we adopted a concept termed "Fusion Surgery." Specifically, for intracorporeal anastomosis, we utilize "Flexible Fusion Surgery (FFS)," which strategically combines robotic staplers with conventional laparoscopic staplers. By selectively integrating these laparoscopic devices and energy instruments into the robotic procedure via FFS, we significantly reduce the consumption of costly robotic-specific instruments.

Conclusion: Robotic surgery offers superior technical capabilities for gastric cancer treatment. However, its true value is realized only when paired with proactive mentoring and strategic cost-management. Our approach demonstrates that RG can be a sustainable standard of care through the implementation of FFS and structured training.



Hideyuki Wada, MD, PhD, is a Japanese upper gastrointestinal surgeon in the Department of Gastroenterological Surgery II, Division of Surgery, Faculty of Medicine, Graduate School of Medicine, Hokkaido University. He specializes in the surgical management of gastric cancer and esophageal cancer, with particular expertise in robot-assisted surgery for upper GI malignancies, and he is actively engaged in surgical education at the university level. In parallel with his clinical work, he is committed to advancing translational research in near-infrared fluorescence imaging—an area in which he received dedicated research training in Boston as a Postdoctoral Research Fellow at Beth Israel Deaconess Medical Center (Boston, MA, USA; 2013–2015).

After earning his MD from Iwate Medical University in 2007, he completed surgical residency and clinical fellowship training at Hokkaido University Hospital and affiliated hospitals (2007–2013), establishing a strong foundation in upper GI oncologic surgery and minimally invasive techniques. He subsequently obtained his PhD from Hokkaido University Graduate School of Medicine in 2016. Following his overseas research experience, he continued to develop as an academic surgeon in Japan and served as a Chief Surgeon and Staff Surgeon at Hokkaido University Hospital and affiliated institutions from 2021 to 2025. He currently serves as an Assistant Professor at Hokkaido University (2025–present), where he contributes to operative training and the refinement and dissemination of advanced minimally invasive and robotic upper GI surgery, while further expanding his research program in near-infrared fluorescence–guided imaging.

Dr. Wada is board certified by the Japan Surgical Society and is a Board Certified Surgeon and Training Supervisor of the Japanese Society of Gastroenterological Surgery. He is also a qualified surgeon under the Endoscopic Surgical Skill Qualification System of the Japan Society for Endoscopic Surgery, holds a Robo Doc Certificate (Domestic B) from the Japan Society for Robotic Surgery, and is a Board Certified Esophageal Specialist of the Japan Esophageal Society.

GS-2 Collaborative Innovation in Colorectal Cancer Surgery- Robotic Fusion Surgery and taTME

Koichi Teramura, Yuki Okawa, Sho Sekiya, Toshihiro Kushibiki, Daisuke Saikawa, Yoshinori Suzuki, Yo Kawarada, Shuji Kitashiro, Shunichi Okushiba

Department of Surgery, Tonan Hospital

Recent advances in minimally invasive techniques have expanded the surgical options for colorectal cancer, while increasing awareness of cost, efficiency, and team-based workflow. This lecture addresses two contemporary strategies: transanal total mesorectal excision (taTME) for rectal cancer and robotic-assisted colectomy employing laparoscopic energy devices as a form of Fusion Surgery.

taTME was developed to overcome the technical challenges of conventional transabdominal total mesorectal excision, particularly in patients with a narrow pelvis, obesity, bulky tumors, or very low rectal cancer. The transanal bottom-up approach allows direct visualization of the distal rectum, accurate distal margin control, and stable dissection along embryological planes. These features may improve specimen quality and facilitate sphincter preservation in selected patients. However, taTME is technically demanding and associated with a steep learning curve, with specific risks related to unfamiliar pelvic anatomy and organ injury. Variability in oncological outcomes reported in early national audits highlights the necessity of structured training, procedural standardization, and careful patient selection. Thus, taTME should be regarded as an expertise-dependent option rather than a universal technique.

In colon cancer surgery, robotic assistance offers superior visualization, instrument articulation, and ergonomic advantages. Nevertheless, exclusive reliance on robotic instruments may increase procedural cost and reduce efficiency due to frequent instrument exchanges. Fusion Surgery, in which laparoscopic energy devices are actively used by the bedside assistant in conjunction with robotic manipulation by the console surgeon, provides a practical solution. The use of laparoscopic devices offers clear cost advantages, as they are generally less expensive and often reusable compared with robotic instruments. Furthermore, delegating energy-based dissection and vessel sealing to the assistant reduces the need for repeated robotic instrument exchanges, thereby shortening operative time and improving procedural flow.

By integrating robotic precision with the efficiency and cost-effectiveness of laparoscopic energy devices, Fusion Surgery promotes a collaborative operative environment that maximizes the strengths of both platforms. Together with taTME, this approach underscores a central concept in modern colorectal cancer surgery: optimal outcomes depend on balanced technology integration, efficient teamwork, and patient-centered strategy rather than strict adherence to a single surgical modality.

Dr. Koichi Teramura is a Japanese gastrointestinal surgeon specializing in rectal cancer surgery, with particular expertise in transanal total mesorectal excision (taTME). After graduating from Asahikawa Medical University in 2005, he completed comprehensive surgical training at high-volume centers, developing a strong foundation in advanced minimally invasive colorectal surgery.

To further refine his expertise in complex rectal cancer surgery, Dr. Teramura underwent dedicated training in colorectal surgery at the National Cancer Center Hospital East, Japan, where he acquired advanced skills in taTME within a specialized, high-standard oncological environment. This experience played a central role in shaping his surgical philosophy, emphasizing precise mesorectal dissection, oncological safety, and functional preservation in low rectal cancer.

He has since been actively involved in the clinical application, refinement, and dissemination of taTME, integrating the technique with laparoscopic and robot-assisted approaches. His clinical and academic interests focus on optimal patient selection, technical standardization, and the future role of taTME in modern rectal cancer treatment.

Dr. Teramura currently serves as a senior colorectal surgeon and contributes to surgeon education and academic discussion on advanced rectal cancer surgery. He is board certified and an instructor in surgery and gastroenterological surgery in Japan, holds board certification in coloproctology, is an accredited expert surgeon in endoscopic and robot-assisted surgery, and holds a PhD in medicine.

LTS-1 Modern Radiation Therapy for Primary Liver Cancer

Norio Katoh

Department of Radiation Oncology, Hokkaido University Faculty of Medicine

Modern radiation therapy for primary liver cancer currently consists mainly of stereotactic body radiation therapy (SBRT) using X-ray beams and proton beam therapy (PBT). SBRT has been developed to deliver high radiation doses precisely to extracranial tumors in a limited number of fractions while minimizing the doses to surrounding normal tissues. Proton beams have a unique physical property known as the Bragg peak, whereby the maximum dose is deposited near the end of the proton beam range, followed by a rapid dose fall-off beyond the target. This physical property enables superior dose conformality and improved sparing of critical organs compared with X-ray beams, particularly in the treatment of large or anatomically complex tumors.

Primary liver cancer, predominantly hepatocellular carcinoma (HCC), often develops in patients with underlying chronic liver disease, limiting the feasibility of surgical resection or other locoregional therapies. In this context, modern radiation therapy has become an important noninvasive treatment option for patients who are not candidates for surgery, radiofrequency ablation, or transarterial chemoembolization. Accumulating clinical evidence has demonstrated that both SBRT and PBT can achieve high rates of local tumor control with acceptable toxicity profiles when appropriate patient selection and treatment planning are applied.

As the number of patients treated with these modalities continues to increase worldwide, radiation therapy is expected to play an expanding role in multidisciplinary management strategies for primary liver cancer. In this lecture, current clinical evidence supporting the use of modern radiation therapy for primary liver cancer will be presented. In addition, our institutional experience with SBRT and PBT will be presented, with a focus on a real-time tumor-tracking radiotherapy system to compensate for respiratory motion and enhance treatment accuracy and safety.

Dr. Katoh is an Associate Professor of Radiation Oncology at Hokkaido University Faculty of Medicine in Sapporo, Japan.

He graduated from Hokkaido University School of Medicine in 2000 and completed his postgraduate clinical training at Sapporo City General Hospital. He earned his PhD from Hokkaido University in 2008 and was appointed Assistant Professor at Hokkaido University in 2009. In 2013, he was a visiting scholar at The University of Texas MD Anderson Cancer Center. He was promoted to Associate Professor of Radiation Oncology at Hokkaido University in 2020. He is a board-certified radiation oncologist in Japan and is actively involved in the clinical management of gastrointestinal malignancies, particularly pancreatic and hepatobiliary cancers. His clinical practice focuses on high-precision radiation therapy, including proton beam therapy, adaptive radiotherapy, and advanced motion-management strategies, with extensive experience in the treatment of abdominal tumors. He has received multiple academic honors, including the Umegaki Award from the Japanese Society for Radiation Oncology and the JCA–Nagayama Award from the Japanese Cancer Association as a co-recipient. He currently serves as an Associate Editor of the Japanese Journal of Radiology and is a councilor of the Japanese Society for Radiation Oncology.

LTS-2 Robotic anatomic hepatectomy

Nuh N. Rahbari

University Medical Center Ulm

No Abstracts

Nuh N. Rahbari, MD, MHB

Academic degree: Professor of Surgery
Current Institution: Department of Surgery University Hospital Ulm

Stages of academic/professional career

2023-	Chairman and Professor of Surgery, University Hospital Ulm
2018-2023	Vice Chairman, Department of Surgery, University Hospital Mannheim
2017-2018	Attending Surgeon, Department of Surgery, University Hospital Dresden
2016-2017	Surgical Oncology Fellow, Memorial Sloan Kettering Cancer Center, NY, USA
2014	Board Certification Visceral Surgery
2013-2016	Resident Surgeon, Department of Surgery, University Hospital Dresden
2011-2013	Postdoctoral research Fellow, E. Steele lab of Tumor biology, Harvard Medical School
2006-2011	Resident Surgeon, Department of Surgery, University Hospital Heidelberg
2006	Medical license Technical University Munich

Publication metrics

No. of original articles: **225**
Total impact factor: **1384,8**
h-index: **61**

Selected publications:

1. Lim B, …, **Rahbari N**, …, Mall M. Active repression of cell fate plasticity by PROX1 safeguards hepatocyte identity and prevents liver tumorigenesis. Nat Genet. 2025 Mar;57(3):668-679.
2. Birgin E, …, **Rahbari NN**. Robotic versus laparoscopic hepatectomy for liver malignancies (ROC'N'ROLL): a single-centre, randomised, controlled, single-blinded clinical trial. Lancet Reg Health Eur. 2024 Jun 24;43:100972.
3. **Rahbari NN** et al., SYNCHRONOUS and CCRe-IV Trial Groups. Primary Tumor Resection Before Systemic Therapy in Patients With Colon Cancer and Unresectable Metastases: Combined Results of the SYNCHRONOUS and CCRe-IV Trials. J Clin Oncol. 2024 May 1;42(13):1531-1541.
4. Stoecklein NH, …, **Rahbari NN**. Ultra-sensitive CTC-based liquid biopsy for pancreatic cancer enabled by large blood volume analysis. Mol Cancer. 2023 Nov 13;22(1):181.
5. Lin K, …, **Rahbari NN***, Kahlert C*. Comprehensive proteomic profiling of serum extracellular vesicles in patients with colorectal liver metastases identifies a signature for non-invasive risk stratification and early-response evaluation. Mol Cancer. 2022 Apr 1;21(1):91.

MEMO

P1-1 Development of cancer immunotherapies targeting mutant KRAS neoantigens

Yu Ishii[1,2], Yusuke Nakamura [1], Satoshi Hirano [2], Kazuma Kiyotani[1]

[1] Laboratory of Immunogenomics, Center for Intractable Diseases and ImmunoGenomics, National Institutes of Biomedical Innovation, Health and Nutrition
[2] Department of Gastroenterological Surgery II, Division of Surgery, Faculty of Medicine, Hokkaido University

Pancreatic cancer shows poor T cell infiltration and responds poorly to immune checkpoint inhibitors. Therefore, there is an urgent need for novel therapeutic strategies that can induce a potent anti-tumor immune response, such as cancer vaccines and T cell therapies targeting cancer-specific neoantigens. Neoantigens are peptides derived from somatic mutations in cancer cells that are presented by human leukocyte antigen (HLA) molecules on the cell surface and recognized by T cells via T cell receptor (TCR). This enables us to target even intracellular mutant proteins, which were previously considered undruggable, through their neoantigen-derived epitopes.

In this study, we focused on shared neoantigens derived from KRAS hotspot mutations, which are frequently observed in pancreatic cancer, to develop off-the-shelf immunotherapies which can be applicable to significantly broad patient population. We first screened KRAS neoantigen-specific CD8+ T cells from peripheral blood of healthy donors with HLA types commonly found in the Japanese population, and successfully induced KRAS G12C-, G12D-, G12V-specific CD8+ T cells using ELISPOT assay. We subsequently sorted these KRAS neoantigen-specific CD8+ T cells using flow cytometry, and are currently profiling the TCRα/β sequences to generate TCR-engineered T cells. Furthermore, we also screened TCR-like antibodies specifically binding to KRAS neoantigens presented on HLA molecules using a phage display library screening, and identified several phage clones showing specific binding to KRAS neoantigens. Based on these findings, we are developing bispecific antibodies targeting KRAS neoantigens and CD3 to recruit T cells and induce tumor cell killing.

P1-2 Chemotherapy duration correlates with favorable histological tumor regression patterns for R0 resection in biliary tract cancer

Norihiro Takaoka, Shintaro Takeuchi, Takehiro Noji, Masataka Wada, Kimitaka Tanaka, Aya Matsui, Yoshitsugu Nakanishi, Toshimichi Asano, Satoshi Hirano

Department of Gastroenterological Surgery II, Hokkaido University Faculty of Medicine, Sapporo, Japan

[Background and Objective]

Recent advancements in chemotherapy for unresectable biliary tract cancer (BTC) have led to an increasing number of reports of Conversion Surgery (CS). Within the multidisciplinary approach, achieving an R0 resection is very important in order to maximize the efficacy of local treatment of surgery. Therefore, pathological analysis of the morphological patterns of tumor regression following chemotherapy is necessary. Existing histological tumor response grading systems provide the percentage of tumor regression but do not account for the necessary morphological information.

This study aimed to meticulously map and classify the heterogeneous distribution of residual and regressed tumor areas in BTC specimens resected after pre-operative chemotherapy and to explore the association between clinicopathological factors and histological regression patterns favorable for surgical resection.

[Material and Methods]

We retrospectively analyzed 23 patients with BTC (Perihilar Cholangiocarcinoma: 10, Distal Cholangiocarcinoma: 4, and Gallbladder Cancer: 9) who underwent surgical resection following chemotherapy at our department between 2019 and 2024. Chemotherapy was administered with the intention of neoadjuvant treatment for locally advanced disease (n=10) and for conversion in initially unresectable cases (n=13). The chemotherapy regimens included GCS (n=15), GC (n=4), GCD (n=3), and GCS+GCD (n=1). We microscopically mapped the fine details of the heterogeneously distributed residual and regressed tumor areas in each resected specimen to investigate the patterns of tumor regression.

[Results]

Three distinct tumor regression patterns were identified based on the distribution of tumor regression:

Type A: Tumor regression is primarily peripheral (or marginal), with remnants concentrated centrally.

Type B: Regressed areas are scattered, forming islands within the tumor mass.

Type C: Little or no tumor regression is observed.

Regarding surgical margin control, Type A was considered the most favorable morphology for achieving R0 resection. The frequency of Type A morphology was significantly higher in patients who received chemotherapy for two months or longer (66.7%) compared to those treated for less than two months (25%) (p=0.05). No correlation was found between the duration of chemotherapy and (1) radiological tumor shrinkage (RECIST) or (2) the scores from existing histological response grading systems.

[Conclusion]

A chemotherapy duration of at least two months may be necessary to achieve local control through pre-operative chemotherapy, leading to a histologically favorable pattern for R0 resection. Further analyses of this morphological change across a larger cohort, correlating the patterns with R0 resection rates and overall prognosis, could provide crucial information for optimizing the surgical strategy within multidisciplinary treatment for BTC.

P1-3 Comparison of Nationwide Gastrointestinal Surgical Volumes in Japan: Implications from Publicly Available NCD and NDB Open Data

Masakazu Fujii[1,2], Toshimichi Asano[1], Atomu Kiriyama[1], Chikako Nishiwaki[2], Kazunori Watanabe[2], Masayuki Fukushima[2], Keisuke Okamura[2], Miyoshi Fujita[2], Takayuki Morita[2], Satoshi Hirano[1]

[1] Department of Gastroenterological Surgery II, Faculty of Medicine, Hokkaido University
[2] Department of surgery, Hokkaido Gastroenterological Hospital

Background:

Nationwide databases with near-complete national coverage of surgical procedures are essential for characterizing surgical demand, informing future healthcare needs, and enabling nationwide quality assessment and benchmarking. In Japan, two nationwide databases—the National Clinical Database (NCD) and the National Database of Health Insurance Claims and Specific Health Checkups of Japan (NDB)—are widely used, but their concordance in capturing national surgical volumes has not been systematically evaluated.

Methods:

We compared publicly available data from the NCD annual surgical statistics and the National Database of Health Insurance Claims and Specific Health Checkups of Japan Open Data (NDB Open Data) from 2014 to 2023. Annual case numbers were extracted for major gastrointestinal procedures, including cholecystectomy, inguinal hernia surgery, appendectomy, colorectal cancer surgery, and gastric cancer surgery, after harmonizing procedure definitions between the two databases. To evaluate concordance, we summarized the median NCD/NDB ratio (IQR), assessed correlation of absolute annual volumes using Pearson's r, and calculated the proportion of years with concordant directions of year-to-year change.

Results:

Across procedures, the NCD generally recorded higher annual surgical volumes than the NDB Open Data, with relatively stable procedure-specific NCD/NDB ratios. For cholecystectomy, the median NCD/NDB ratio was 1.08 (IQR 1.06–1.08). Absolute annual volumes showed moderate correlation between the two databases (Pearson's r=0.70), and the direction of year-to-year change was concordant in 77.8% of evaluable years. For appendectomy, the median ratio was 1.10 (IQR 1.08–1.12). Absolute volumes were correlated (Pearson's r=0.78), but concordance in the direction of year-to-year change was lower, observed in 44.4% of years. For inguinal hernia surgery, analyses of temporal trends were restricted to 2018–2023 because of discrepancies in procedure coding in earlier years. The median ratio was 1.08 (IQR 1.07–1.10). Absolute annual volumes were very strongly correlated (Pearson's r=0.96), and the direction of year-to-year change (2019–2023) was concordant in 80% of years. For colorectal cancer surgery, absolute volumes were nearly identical overall (median ratio 1.00, IQR 0.971–1.00). Absolute annual volumes were correlated (Pearson's r = 0.77), with a high rate of directional concordance (88.9%). For gastric cancer surgery, the median ratio was 1.06 (IQR 1.05–1.08). Absolute annual volumes were strongly correlated (Pearson's r=0.90), and the direction of year-to-year change was concordant in 88.9% of years.

Conclusions:

NCD and NDB Open Data showed broadly comparable national patterns with stable, procedure-specific NCD/NDB ratios.

P1-4 Cadaver-Based Trauma Surgery Training for Lifelong Surgical Education: Outcomes of the Hokkaido University C-BEST Program

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Background

Opportunities for hands-on trauma surgery training have become increasingly limited due to the declining incidence and centralization of trauma cases. Consequently, many general surgeons have limited clinical exposure and low confidence in essential trauma management skills, highlighting a significant educational gap in trauma surgery training. To address this issue, Hokkaido University initiated a structured cadaver-based trauma surgery training program, the Cadaver-based Educational Seminar for Trauma Surgery (C-BEST), as part of postgraduate and lifelong surgical education.

Methods

We conducted a questionnaire-based evaluation of participants who attended 13 C-BEST courses held at Hokkaido University between October 2017 and December 2025. A total of 143 surgeons participated in the program, and valid responses were obtained from 126 participants (response rate: 88.1%).

Self-Assessment of Confidence Level (SACL) was measured using an 11-point Likert scale (0 = unable to perform; 5 = able to perform with a supervising surgeon assisting; 10 = able to perform with a junior resident assisting). Confidence levels were assessed at three time points: before the course, immediately after the course, and six months after participation. Twenty-one core trauma surgical procedures were evaluated.

Results

Participants represented a broad range of surgical backgrounds. Across all 21 evaluated procedures, mean SACL scores increased immediately after completion of the course. Nineteen procedures achieved a mean SACL score of 5 or higher, indicating perceived ability to perform the procedure as the primary surgeon. At six months follow-up, 17 procedures maintained a mean SACL score of 5 or higher, demonstrating sustained confidence over time.

Conclusion

The C-BEST program significantly improved and sustained self-reported confidence in essential trauma surgery skills among participating surgeons. Cadaver-based training represents an effective and reproducible educational model that complements limited clinical exposure to trauma surgery. This program supports lifelong surgical education and may contribute to strengthening trauma readiness among general surgeons in diverse practice settings.

P1-5 Burnout and Career-Interruption Considerations Among Gastrointestinal Surgeons in Hokkaido prefecture, Japan: A Cross-Sectional Survey Using the Burnout Assessment Tool

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Background

Surgeon burnout poses a growing threat to the sustainability of surgical services worldwide. In Japan, concerns regarding surgeon workload, workforce retention, and regional disparities have intensified, yet contemporary, region-specific data using standardized burnout instruments remain limited. This study aimed to provide a descriptive overview of burnout indicators alongside workload, work environment, and career-sustainability measures among gastrointestinal surgeons practicing in Hokkaido, Japan.

Methods

We conducted an anonymous, cross-sectional, web-based survey of gastrointestinal surgeons practicing in Hokkaido. Burnout was assessed using the validated Japanese version of the Burnout Assessment Tool (BAT-12), with severity categorized according to the traffic-light model (suspected burnout: total score ≥31; high risk: ≥36). The questionnaire also included items on working hours, on-call duties, non-clinical workload, autonomy, psychosocial support, organizational culture, and consideration of career interruption or exit. Analyses were descriptive.

Results

Of 643 eligible surgeons invited, 466 responded, and 412 provided complete BAT-12 data (valid response rate 67.1%). Suspected burnout was observed in 38.4% of respondents, including 13.1% classified as high risk. More than half of surgeons (55.6%) reported having considered interrupting or leaving their surgical career. Median total working time was 230.5 hours per month (interquartile range [IQR] 190.5–270.5). Depending on assumptions regarding interval responses, 30.3% to 45.4% of surgeons exceeded the threshold corresponding to 80 hours of overtime per month. High proportions reported substantial burden from non-clinical tasks, dissatisfaction with workplace support systems, and experiences of workplace harassment.

Conclusion

In this regional cohort of gastrointestinal surgeons, burnout risk and career-interruption considerations were highly prevalent and coexisted with substantial workload and adverse organizational conditions. These findings provide baseline descriptive data that may inform future research, organizational interventions, and policy discussions aimed at sustaining the surgical workforce.

Conflict of Interest

The authors declare no conflicts of interest.

P2-1 Delayed intramesenteric perforation after colonoscopy through a colostomy: a case report

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<Background>
Colonoscopy through a colostomy is generally considered a safe procedure, but it can be technically challenging due to stoma configuration and limited maneuverability. Perforation is a rare but serious complication. We report a unique case of delayed intramesenteric perforation of the sigmoid colon occurring 28 days after colonoscopy through a colostomy.
<Case presentation>
A 62-year-old man underwent Hartmann's operation two years earlier for colonic perforation following an upper gastrointestinal barium study. For screening of colonic polyps, a colonoscopy was performed via the end colostomy. Intubation through the stoma was technically difficult but completed without immediate complications.
Twenty-eight days later, the patient presented with localized pain around the stoma. CT revealed a dirty mass sign and retroperitoneal air extending from the sigmoid mesocolon, suggesting delayed perforation. Emergency surgery was performed. Intraoperatively, stool leakage was found within the mesocolon near the stoma, but there was no intraperitoneal contamination. The affected sigmoid colon, including the perforated site (~3 cm in diameter), was resected, and a new end colostomy was created. Pathological examination confirmed transmural perforation with localized inflammation. The postoperative course was uneventful.
<Conclusions>
This case highlights a rare complication of colonoscopy through a colostomy. Technical difficulty during insertion, especially near the stoma tunnel, can cause subtle injury leading to delayed intramesenteric perforation. Careful manipulation during insertion and close observation after difficult procedures are warranted.

P2-2 Laparoscopic approach in the surgical treatment of large retrorectal tumors: a short-term experience at a single tertiary center case series in Korea

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Retrorectal tumors, although rare, pose diagnostic and treatment challenges due to their nonspecific symptoms and complex anatomical location. This single-center case series reports short-term outcomes of laparoscopic transabdominal resection as a surgical approach for large retrorectal tumors. Between 2017 and 2020, five patients underwent this procedure.

The median patient age was 53.2 years (range, 34–60 years), and the median operating time was 130 minutes (range, 95–205 minutes). All tumors were located in the retrorectal space. The median tumor size was 5.8 × 4.3 cm (range, 3.5–7.5 cm). Biopsy results included epidermoid cysts, tailgut cyst, lipoma, and keratinous cyst. The median hospital stay was 7.8 days (range, 5–11 days), and the median follow-up duration was 78.0 days (range, 14–219 days). One patient developed a postoperative surgical site infection. Overall, laparoscopic transabdominal resection appears to be a minimally invasive and effective treatment option for retrorectal tumors.

Keywords : Retroperitoneal neoplasms, Epidermal cyst, Pelvis, Minimally invasive surgical procedures, Laparoscopy

P2-3 A Case of Enterocolic Lymphocytic Phlebitis of the Descending Colon Requiring Surgical Resection for Inflammatory Stenosis

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An 87-year-old woman was referred to our hospital for further evaluation and treatment after abdominal computed tomography (CT), performed at another institution for investigation of elevated carcinoembryonic antigen (CEA) levels, revealed edematous wall thickening of the descending colon. Lower gastrointestinal endoscopy demonstrated a circumferential stenosis with ulceration in the descending colon, through which the endoscope could not be passed. Biopsy specimens obtained from the stenotic lesion showed no evidence of malignancy. A contrast enema study revealed a approximately 5cm long, lead-pipe–like stenosis extending from the splenic flexure to the descending colon, without any apparent mass lesion. Based on these findings, inflammatory stenosis of the descending colon was suspected, and laparoscopic left hemicolectomy was performed.

Macroscopically, the resected specimen showed luminal narrowing accompanied by marked wall thickening. Histopathological examination revealed lymphocytic infiltration predominantly involving the venous walls from the submucosal layer to the mesentery, along with features of phlebitis, without arterial involvement. These findings led to a diagnosis of enterocolic lymphocytic phlebitis (ELP). The postoperative course was uneventful, and the patient was discharged home on postoperative day 9. No recurrence has been observed during follow-up.

ELP is a rare inflammatory disease characterized by lymphocytic inflammation of small- to medium-sized veins in the gastrointestinal tract and mesentery, without involvement of arteries or evidence of systemic vasculitis. Clinical manifestations are diverse, ranging from acute abdomen to chronic intestinal stenosis, although an acute clinical course is more commonly reported. The small intestine and right-sided colon are the most frequently affected sites; however, cases involving the left-sided colon, as in the present case, have also been reported. Imaging and endoscopic findings are nonspecific, making differentiation from ischemic bowel diseases such as ischemic colitis difficult, and in some cases, distinction from neoplastic diseases is required. Surgical resection is often selected in cases presenting with acute abdomen or intestinal stenosis, and postoperative recurrence is considered rare.

P2-4 A case of medullary carcinoma of the ascending colon with BRAF mutation and MSI-High

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Medullary carcinoma was previously classified as poorly differentiated adenocarcinoma. However, in the WHO Classification of Tumors of the Digestive System, medullary carcinoma has recently been difined as a histopathologic variant of colorectal cancer and has been recognized as a new histological type. We report a case of medullary carcinoma of the ascending colon with BRAF mutation and MSI-High.

A 67-year-old woman presented with epigastric pain and diarrhea. CT suggested ascending colon cancer, and she was referred to our institution. Abdominal examination revealed a fist-sized mass with poor mobility in the right lower abdomen. Colonoscopy revealed a large type 1 tumor in the ascending colon and its biopsy showed poorly differentiated adenocarcinoma. CT showed a 7-cm mass in the ascending colon, suggesting intussusception caused by the tumor. There was no evidence of regional lymph node metastasis or distant metastasis. Therefore, the patient was diagnosed with ascending colon cancer (cT3N0M0, cStage IIa) and underwent laparoscopic ileocecal resection with D3 lymph node dissection. Histopathological examination revealed medullary carcinoma, and the final diagnosis was pT3N1a, pStage IIIb. Molecular analysis revealed BRAF mutation (V600E), MSI-High, and wild-type RAS. No family history suggestive of Lynch syndrome was identified. Based on the presence of the BRAF V600E mutation and MSI-High status, this patient was diagnosed with sporadic colorectal cancer. The patient received 12 cycles of adjuvant chemotherapy with mFOLFOX6. Four years after surgery, no recurrence has been observed.

Medullary carcinoma accounts for 0.02–3% of all colorectal cancers. It predominantly occurs in elderly and women, and approximately 90% arise in the right colon. Furthermore, many cases exhibit BRAF mutations and MSI-High, whereas RAS mutations are uncommon. Generally, although medullary carcinoma tends to present as a large tumor, it has been reported to have a lower incidence of lymph node metastasis and a better prognosis than typical poorly differentiated adenocarcinoma. However, some reports have indicated no prognostic difference compared to poorly differentiated adenocarcinoma in stage III with lymph node metastasis. Owing to its rarity, the optimal postoperative chemotherapy for medullary carcinoma has not been established. The postoperative treatment strategy should be determined appropriately based on the patient's general condition, risk of recurrence, and MSI status.

P2-5 Discrepancy Between Morphological Residual Disease and Histological pCR: A Case Report of Pathological Complete Response to Pembrolizumab in dMMR Colorectal Cancer with Liver Metastasesis

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Introduction: Immune checkpoint inhibitors (ICIs) demonstrate high response rates in mismatch repair deficient (dMMR) colorectal cancer (CRC). Although radiological or macroscopic findings suggest residual tumor, a pathological complete response (pCR) may still be possible. In this case, surgical resection was performed after preoperative administration of pembrolizumab for dMMR CRC with liver metastases. Despite preoperative evaluations suggested residual tumor, pCR was confirmed in both the primary tumor and metastases.

Case presentation: A 70-year-old male with a history of diabetes mellitus and hypertension presented with anemia. A lower gastrointestinal endoscopy at a local hospital diagnosed sigmoid colon cancer. Further evaluation confirmed the diagnosis of clinical stage (cStage) IVa dMMR CRC with multiple liver metastases. A laparoscopic transverse colostomy was performed for the treatment of obstruction caused by the tumor. Resection of the primary tumor and metastases was considered, but due to the presence of ischemic heart disease, priority was given to its treatment with percutaneous coronary intervention (PCI), and pembrolizumab (200 mg every 3 weeks) was concurrently administered for six courses. This treatment resulted in marked reduction in size of both the primary tumor and the liver metastases. Subsequently, a two-stage surgical approach was performed: a robot-assisted sigmoid colectomy followed by a laparoscopic right hepatectomy. Preoperative imaging and intraoperative findings suggested residual tumor, but pathological examination revealed no viable cancer cells at either site, leading to a diagnosis of pCR.

Conclusion: This case demonstrated the remarkable therapeutic efficacy of ICIs in treating dMMR CRC. Furthermore, it serves as a valuable example of the discrepancy between imaging/macroscopic findings and pathological results. It highlights the importance of evaluating pCR and making comprehensive treatment decisions in future therapeutic strategies.

P2-6 A case of hepatic echinococcosis associated with liver metastasis from colon cancer

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A man in his 70s presented with symptoms of bowel obstruction and was diagnosed with rectal cancer located in the Rs segment. Contrast-enhanced computed tomography revealed the primary rectal tumor, along with multiple cystic lesions in the left hepatic lobe and bulky lymphadenopathy extending from the hepatic hilum to the common hepatic artery. The differential diagnoses for the hepatic lesions included hepatic lymphangioma, intraductal papillary neoplasm of the bile duct, echinococcosis, and cholangiocarcinoma.

Hartmann's procedure was performed for the rectal cancer. Pathological examination revealed adenocarcinoma classified as pT4aN1b. Concomitantly, the round ligament of the liver, which was infiltrated by the cystic hepatic lesion, was resected. Histopathological evaluation of this specimen diagnosed hepatic echinococcosis. No adjuvant chemotherapy was administered for colorectal cancer, and the patient was managed with oral albendazole for echinococcosis.

At 1 year and 9 months postoperatively, a mild elevation in carcinoembryonic antigen levels was observed. Follow-up CT revealed a solitary liver metastasis in segment 7, consistent with colorectal cancer metastasis. While continuing albendazole therapy, systemic chemotherapy with FOLFIRI plus panitumumab was initiated and administered for five courses. As no new lesions were detected after chemotherapy, partial hepatectomy was performed 2 years and 6 months after the initial colorectal surgery.

Postoperatively, albendazole therapy was continued. At 2 years after hepatic resection, the patient remains alive with no evidence of colorectal cancer recurrence and is being followed up in the outpatient setting.

Here, we report an extremely rare case in which systemic chemotherapy and subsequent hepatic resection for colorectal liver metastasis were performed under continuous albendazole treatment for hepatic echinococcosis. This case highlights the feasibility of multidisciplinary management for colorectal cancer complicated by hepatic echinococcosis.

P3-1 Reassessing the Real-World Effectiveness of Neoadjuvant Gemcitabine plus S-1 as the Standard Approach for Resectable Pancreatic Head Cancer

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Background: Neoadjuvant chemotherapy (NAC) is recommended for resectable pancreatic cancer in Japan based on the Prep-02/JSAP-05 trial; however, its real-world benefit in resectable pancreatic head cancer and the impact of regimen selection remain unclear. We reassessed the real-world effectiveness of neoadjuvant gemcitabine plus S-1 (GS), which has become the standard approach in Japan, by comparing outcomes with upfront surgery (UF) and an alternative neoadjuvant regimen (GnP).

Methods: This retrospective single-center cohort study included consecutive patients with resectable pancreatic head cancer who underwent pancreaticoduodenectomy between January 2012 and December 2022. Patients with carcinoma in situ were excluded. Treatment strategy evolved over time (UF, NAC-GS, and NAC-GnP). Overall survival (OS) and recurrence-free survival (RFS) were evaluated using Kaplan–Meier analyses and compared by log-rank tests. Univariable and multivariable Cox proportional hazards models were used to identify prognostic factors for OS.

Results: A total of 206 patients underwent pancreaticoduodenectomy; 112 patients received UF and 94 received preoperative treatment. One patient treated with neoadjuvant chemoradiotherapy was excluded. Among 93 patients who received NAC, 85 completed the planned regimen (completion rate, 91.4%); NAC was discontinued in eight patients due to neutropenia (n=2), cholangitis (n=2), skin rash (n=2), tumor progression (n=1), and anorexia (n=1). In the three-group comparison (UF, NAC-GS, and NAC-GnP), perioperative outcomes, R0 resection rates, recurrence patterns, and adjuvant chemotherapy delivery were comparable, although histological differentiation differed among groups (p=0.0008). OS did not differ significantly among UF, NAC-GnP, and NAC-GS (p=0.8400); 5-year OS rates were 40.6%, 51.0%, and 58.3%, respectively. RFS was also similar among groups (p=0.9779); 5-year RFS rates were 31.8%, 19.1%, and 36.7%, respectively. Multivariable analysis identified pathological T3 disease and pathological lymph node metastasis as independent predictors of worse OS, whereas NAC was not independently associated with OS.

Conclusions: In this real-world single-center cohort of resectable pancreatic head cancer, GS, which has been established as the standard neoadjuvant approach in Japan, was not associated with improved OS or RFS compared with UF in this real-world cohort, and survival outcomes were comparable to those of an alternative neoadjuvant regimen (GnP). These findings suggest that the benefit of NAC-GS may be context-dependent, supporting a selective, biology-driven approach rather than uniform application to all resectable cases.

P3-2 Role of preoperative circulating tumor DNA in predicting occult metastases in resectable and borderline resectable pancreatic ductal adenocarcinom

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Background: Patients with resectable (R) or borderline resectable (BR) pancreatic ductal adenocarcinoma (PDAC) may harbor radiologically undetectable distant disease that becomes apparent at laparotomy or manifests as very early postoperative recurrence. In this study, such events were collectively defined as *occult metastases (OM)* (intraoperative distant metastases not detected on preoperative imaging or distant metastases occurring within 6 months after surgery). Accurately identifying OM preoperatively is essential to avoid non-beneficial pancreatectomy and to optimize multidisciplinary treatment. We prospectively evaluated whether preoperative circulating tumor DNA (ctDNA), assessed by multigene targeted next-generation sequencing (NGS), predicts OM in R/BR PDAC.

Methods: Two Japanese institutions prospectively enrolled patients with R/BR PDAC scheduled for pancreatectomy (June 2019–September 2021). Peripheral blood was collected on the day of surgery (and in a subset at initiation of neoadjuvant therapy [NAT]). Plasma ctDNA was analyzed using a 52–cancer-related-gene targeted NGS panel (Oncomine Pan-Cancer Cell-Free Assay). ctDNA was defined as positive when mutant allele frequency was ≥0.065% with ≥2 mutant copies; variants consistent with clonal hematopoiesis were excluded using matched buffy coat sequencing. OM predictors were evaluated using logistic regression. Optimal cutoffs for preoperative CA19-9 and tumor size were determined by receiver operating characteristic analysis. Survival outcomes were assessed using Kaplan–Meier methods (follow-up through July 31, 2023).

Results: Of 141 enrolled patients, 135 were eligible for analysis (median age 71 years; R/BR 91/44; NAT 109 [80.7%]). OM occurred in 38 patients. After excluding clonal hematopoiesis-related variants, ctDNA mutations were identified in 35 patients (59 mutations), most frequently TP53 (n=20) and KRAS (n=9). ctDNA positivity was significantly more common in patients with OM than without OM (47.4% vs 18%). In multivariable analysis, ctDNA positivity independently predicted OM (odds ratio [OR] 4.96; 95%CI 2.07–11.90), along with preoperative CA19-9 ≥150 U/mL (OR 2.89; 95%CI 1.10–7.61). Adding ctDNA status to a model containing CA19-9 and tumor size improved OM discrimination (AUC 0.617 to 0.724; P=0.013). Among resected patients, ctDNA positivity was associated with inferior recurrence-free survival (median 10.2 vs 25.8 months) and overall survival (median 22.9 vs 41.4 months). In a NAT subset with paired sampling, patients remaining or becoming ctDNA-positive after NAT showed particularly poor postoperative recurrence-free survival.

Conclusion: Preoperative ctDNA positivity, measured by multigene targeted NGS, is an independent predictor of OM and poor prognosis in R/BR PDAC. Incorporating ctDNA into preoperative assessment may improve risk stratification and help tailor multidisciplinary strategies.

P3-3 Status of lymph node metastasis and efficacy of lymph node dissection along the superior mesenteric artery in pancreatic head cancer

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Background: Between 2002 and 2013, we performed pancreatoduodenectomy (PD) with combined resection of the superior mesenteric artery (SMA) (PD-SMAR) to treat locally advanced pancreatic head cancer (PHC). Because pathological evaluation of PD-SMAR showed frequent metastasis to lymph nodes all around the SMA in the PD-SMAR specimens, we have performed PD with circumferential lymph node dissection along the SMA (PD-CLDS) since 2011. In this procedure, we dissected lymph nodes all around the SMA for thorough lymph node dissection (LND) along the SMA. In this study, we examined the status of lymph node metastasis and efficacy of LND along the SMA.

Methods: In the first study, 22 patients with PHC who underwent PD-SMAR were enrolled. We examined the location of lymph nodes along the SMA and classified them according to their spatial relationship with the SMA. Then, we evaluated the incidence of metastasis to each node. In the second study, we examined the incidence of metastasis at each lymph node station and evaluated the efficacy for LND at each node by estimating the efficacy index with 103 patients who underwent PD-CLDS.

Results: In the first study, lymph nodes along the SMA were classified into five basins (14R, 14L, 14V, 14I, and 14D) using PD-SMAR specimens. Lymph node metastasis was observed in 73% of 22 patients, and LN metastasis along the SMA was observed in 64%. Each of five basins had a metastasis incidence of at least 20% among the 22 patients. In the second study, 55% of patients underwent PD-CLDS had lymph node metastasis. The median survival time and 5-year survival after surgery for N0, N1, N2 were 115.9, 55.6, 24.6 months and 67.4, 47.0, 10.0 % respectively. Lymph nodes along the SMA were the most frequent station of metastasis with an incidence rate of 34%. Furthermore, it showed the highest efficacy index among the regional lymph nodes. Of the five lymphatic basins along the SMA, 14I (lymph node along the inferior pancreatoduodenal artery) had the highest frequency of metastasis and was the lymphatic basin with the highest efficacy index. In contrast, 14L (lymph node along the left side of the proximal SMA) showed the lowest value of both incidence of metastasis and efficacy index.

Conclusions: Lymph nodes along the SMA are a frequent site of metastasis and LND along the SMA demonstrates high efficacy among the regional lymph nodes in PHC.

P3-4 A Case of a Giant Pancreatic Neuroendocrine Tumor Resected after Preoperative Chemotherapy and Transarterial Embolization

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[Case]

A 39-year-old woman was diagnosed with a grade 2 pancreatic neuroendocrine tumor (PNET). The tumor was a giant hypervascular mass centered in the pancreatic body and tail, occupying the entire upper abdomen. Splenic vein occlusion caused marked collateral circulation to the stomach, colon, and retroperitoneum. In addition, a tumor thrombus and circumferential stenosis of the superior mesenteric vein (SMV) were observed. Although no distant metastasis was present, the tumor was locally advanced and considered unresectable because of its size and extensive collateral vessels. Therefore, non-surgical treatment was initiated.

[Preoperative Chemotherapy and Transarterial Embolization]

Four courses of streptozotocin plus 5-fluorouracil were administered. The tumor shrank, and the SMV tumor thrombus disappeared, allowing surgical intervention. Because the tumor remained large and had multiple feeding arteries, selective preoperative transarterial embolization of the gastroduodenal artery, right and left gastric artery branches, and splenic artery was performed one day before surgery.

[Surgery]

Total pancreatectomy with portal vein resection was performed. The tumor and collateral vessels were collapsed, and bleeding was controllable. Due to severe adhesion at the site of the former SMV tumor thrombus, combined resection of the SMV and splenic vein with circumferential reconstruction was required. Operative time was 12 h 12 min, and blood loss was 1,440 mL without transfusion. The postoperative course was uneventful, and the patient was discharged on postoperative day 25. Pathological examination revealed a grade 2 PNET with R0 resection.

[Conclusion]

This case demonstrates the effectiveness of multidisciplinary treatment, suggesting that preoperative therapy and transarterial embolization may be useful strategies for giant hypervascular pancreatic neuroendocrine tumors.

P3-5 A case of mixed acinar-neuroendocrine-ductal carcinoma arising from a gastric duplication cyst

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A 49-year-old Japanese woman was referred to our hospital for evaluation due to left abdominal pain with dyspnea. Contrast-enhanced CT revealed a large abdominal cyst adhered to the spleen and left diaphragm. MRI showed A 103 mm multi-cystic lesion with solid components in the left subdiaphragmatic region. The operation was done. After laparotomy, the large tumor had infiltrated the left diaphragm, Distal Pancreatectomy was performed with combined resection of diaphragm. and multiple lung metastases with malignant pleural effusion were present in thoracic cavity. Gore dual mesh® was used for reconstruction of diaphragm. The postoperative pathological diagnosis was mixed acinar-neuroendocrine-ductal carcinoma arising from a gastric duplication cyst. Postoperative chemotherapy was planned, but the patient died on postoperative day 24 due to respiratory failure associated with pleural carcinomatosis. Mixed acinar-neuroendocrine-ductal carcinoma with pancreatic ductal carcinoma, acinar cell carcinoma, and neuroendocrine carcinoma components were very rare and only a few case reports. We encountered a case of mixed acinar-neuroendocrine-ductal carcinoma with pancreatic ductal carcinoma, which was a cystic lesion of unknown primary origin preoperatively and was suggested to have developed from a gastric duplication cyst in postoperative pathological diagnosis.

P4-1 A Retrospective Study Comparing nal-IRI plus 5-FU/LV and Modified FOLFIRINOX as Second-Line Chemotherapy Following Gemcitabine plus nab-Paclitaxel in Pancreatic Cancer

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【Background】

Gemcitabine plus nab-paclitaxel (GnP) and modified FOLFIRINOX (mFFX) are recommended first-line regimens for pancreatic cancer, and recent trials suggest GnP may provide longer overall survival, increasing its use. After GnP, fluorouracil-based regimens are recommended. Although nal-IRI with 5-FU/LV tends to cause fewer adverse events, mFFX is often chosen for younger or fit patients. Thus, the optimal second-line regimen remains uncertain.

【Methods】

We conducted a retrospective study of patients diagnosed with pancreatic cancer at Juntendo University Hospital between January, 2022 and December, 2024. Patients included those with unresectable advanced disease or postoperative recurrence who received GnP as a first-line chemotherapy and subsequently underwent second-line treatment with either nal-IRI with 5-FU/LV or mFOLFIRINOX. Clinical characteristics and treatment outcomes were collected from medical records. Overall survival (OS) and progression-free survival (PFS) were evaluated.

【Results】

Between January, 2022 and December, 2024, a total of 275 patients were diagnosed with pancreatic cancer. Among them, first-line chemotherapy was administered to 168 patients with unresectable pancreatic cancer and to 17 patients with postoperative recurrence. Among the 137 patients treated with GnP, 26 subsequently received nal-IRI with 5-FU/LV and 21 received mFFX as second-line therapy. 7 received Gemcitabine monotherapy as secondary treatment, and 8 recieved S1. Meanwhile, 75 cases received best supportive care after completion of first-line chemotherapy. Baseline characteristics—including sex, height, performance status, pancreatic tumor location, disease stage, and CA19-9 levels—did not differ significantly between the groups. However, the nal-IRI with 5-FU/LV group was significantly older compared with the mFFX group (73.0 vs 65.0; $p = 0.038$) and had lower median body weight (50.0 vs. 53.0; $p = 0.026$).

The median body surface area was significantly lower in the nal-IRI with 5-FU/LV group compared with the mFFX group (1.48 vs 1.64; $p = 0.012$).

Median OS was 422 days in the nal-IRI with 5-FU/LV group and 493 days in the mFFX group ($p = 0.57$). Median PFS was 126 days and 137 days, respectively ($p = 0.80$).

In the subgroup analysis limited to patients aged 70 years or younger, median OS was 422 days in the nal-IRI + 5-FU/LV group and 452 days in the mFFX group ($p = 0.74$). Median PFS was 125 days in the nal-IRI + 5-FU/LV group and 111 days in the mFFX group ($p = 0.56$). No statistically significant differences in survival outcomes were observed.

【Conclusion】

mFOLFIRINOX administered after gemcitabine plus nab-paclitaxel may not provide a survival advantage compared with nal-IRI with 5-FU/LV, suggesting that nal-IRI with 5-FU/LV may be a preferable choice as second-line chemotherapy.

P4-2 Prognostic Value of the Japanese Modified Glasgow Prognostic Score in Very Elderly

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Background:As the population continues to age, the number of very elderly patients diagnosed with pancreatic cancer is steadily increasing. Treatment decision-making in this population is complex and often influenced by frailty, comorbidities, cognitive impairment, and limited physiological reserve. Identifying which elderly patients may benefit from active treatment, particularly chemotherapy, remains an important clinical challenge. The Japanese modified Glasgow Prognostic Score (mGPS), an inflammation-based prognostic index derived solely from serum CRP and albumin, has gained attention as a simple and objective biomarker. This study aimed to evaluate the relationship between mGPS, treatment selection, and clinical outcomes in patients aged 80 years or older with pancreatic cancer and to explore which subgroups may derive meaningful benefit from chemotherapy.

Methods:We retrospectively reviewed medical records of patients aged ≥80 years who were diagnosed with pancreatic cancer at our institution between June 2020 and December 2024. Clinical characteristics, performance status (PS), mGPS at diagnosis, treatment selection (active treatment vs. best supportive care [BSC]), and overall survival (OS) were analyzed. Among patients who received chemotherapy, mGPS-based subgroups were compared to assess survival differences, and changes in mGPS after first-line therapy were evaluated to determine their impact on eligibility for second-line treatment.

Results:A total of 121 patients aged ≥80 years were identified, of whom 76 received active treatment while 45 chose BSC. Age, sex, and stage distribution, including Stage 4 disease, did not differ significantly between the two groups. However, the treatment group showed significantly better PS (0–1 vs. 2–4: 72 vs. 28, $P < 0.001$) and more favorable baseline mGPS (0/1/2: 44/23/9 vs. 17/13/15, $P = 0.012$). Median OS was markedly longer in the treatment group (463 days) compared with the BSC group (53 days).

Among the 48 patients who received chemotherapy, baseline mGPS stratification demonstrated clear survival differences (OS: 614 vs. 372 vs. 128 days for mGPS 0/1/2, $P = 0.001$). After completion of first-line chemotherapy, mGPS shifted to 10/10/25, and the proportion of patients able to proceed to second-line treatment differed significantly among mGPS categories (7/7/6, $P = 0.019$). These findings suggest that both baseline and dynamic changes in mGPS reflect treatment tolerance and prognosis in this vulnerable population.

Conclusions:Among patients aged ≥80 years with pancreatic cancer, those with better PS and lower mGPS were more likely to receive active treatment and experienced significantly longer survival. mGPS appears to be a useful and simple prognostic tool that may help identify elderly individuals who could benefit from chemotherapy. Incorporating mGPS with broader geriatric assessments—including frailty evaluation, comorbidity burden, and cognitive function—may improve treatment selection and optimize outcomes for very elderly patients.

P4-3 Utility of Preceding Splenic Mobilization using SUTCHEY Technique in Minimally Invasive Distal Pancreatectomy

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Introduction:
Minimally invasive distal pancreatectomy (MIDP) has rapidly gained popularity and is becoming standardized; however, splenic mobilization and division of the splenophrenic ligament remain technically demanding and carry risks of splenic or pancreatic tail injury and bleeding. Since 2024, we have adopted early division of the splenophrenic ligament using Spleen Uplifting Technique utilizing Connective tissue and Hanging left Epiploic structures to allow Yielding traction (SUTCHEY method) during R-DP. This study evaluated the utility of the SUTCHEY method.
Methods:
In the SUTCHEY method, after opening the lesser omentum and clipping the splenic artery, the greater omentum is opened. The gastrosplenic mesentery is then tractioned to elevate the spleen, allowing mobilization of the dorsal aspect of the pancreatic tail and spleen up to the splenic upper pole. The splenophrenic ligament is divided, after which the gastrosplenic mesentery is divided and the procedure proceeds to pancreatic neck management. We reviewed patients who underwent MIDP at our institution between 2023 and 2025 and compared perioperative outcomes between cases performed with the SUTCHEY method (SU group) and those performed with the conventional approach (conventional group).
Results:
The SU group included 7 patients and the conventional group 29 patients. Pancreatic cancer accounted for 4 cases in the SU group and 15 cases in the conventional group (p=0.79). The SU group showed a trend toward shorter time for dissection along the anterior surface of the left kidney (median 601 vs. 1518, p=0.05) and shorter operative time (median 299 vs. 394 min, p=0.06). Blood loss was significantly lower in the SU group (median 0 vs. 130 g, p=0.01).
Conclusion:
The SUTCHEY method may enable safer and faster mobilization of the pancreatic tail and division of the splenophrenic ligament, and may be a useful technique when introducing R-DP.

P4-4 Spleen-Preserving Distal Pancreatectomy Using the Warshaw Technique for Pancreatic Body Cancer: Feasibility and Oncological Outcomes

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Background:
The extent of lymph node dissection in distal pancreatectomy (DP) remains controversial, particularly for pancreatic body cancer. Based on our previous anatomical study (Cancers 2022) showing limited lymphatic flow to the splenic hilum, we adopted spleen-preserving DP (SPDP) using the Warshaw technique for selected patients. This study aimed to assess the safety and oncological validity of this approach in a real-world clinical setting.

Patients and Methods:
Between January 2018 and June 2023, 18 patients with pancreatic body cancer underwent SPDP with splenic vessel resection at our institution. Resectability classification included resectable (n=6), borderline resectable (n=5), and initially unresectable (n=7). Fifteen patients received preoperative therapy, including chemoradiotherapy in eleven cases. Six patients underwent concomitant celiac axis resection. Clinical and pathological outcomes were retrospectively reviewed.

Results:
Median operative time was 384 minutes, and median blood loss was 485 mL. No patient developed clinically relevant postoperative pancreatic fistula. Partial splenic infarction occurred in five patients but required no intervention. Median hospital stay was 18.5 days. R0 resection was achieved in 89%, and 83% received adjuvant chemotherapy. During a median follow-up of 33 months, recurrence was observed in four patients, with diverse patterns including local, lung, liver, and paraaortic sites. Importantly, no recurrence occurred at the splenic hilum.

Conclusion:

SPDP using the Warshaw technique was safely performed in patients with pancreatic body cancer, demonstrating favorable short-term recovery and acceptable oncological outcomes. This approach may be a feasible option in selected patients with tumors confined to the pancreatic body.

P4-5 Hepatobiliary Scintigraphy–Guided Management of Post-Pancreaticoduodenectomy Cholangitis

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Background: Cholangitis after pancreaticoduodenectomy (PD) is an important long-term complication that can cause sudden fever and liver dysfunction and markedly impair postoperative quality of life (QOL). We previously conducted a retrospective analysis of 113 consecutive cases of post-PD cholangitis and reported its incidence, management, and risk factors. However, many aspects remain unclear, and in particular, no established therapeutic strategy exists for non-stenotic cholangitis related to hepaticojejunostomy (hereafter, the anastomosis).

Methods: At our institution, subtotal stomach-preserving pancreaticoduodenectomy (SSPPD) is the standard procedure, and reconstruction is performed using a modified Child method. Hepaticojejunostomy is constructed via a retrocolic route. Since April 2020, we have proactively performed hepatobiliary scintigraphy (HBS) using the radioisotope (RI) 99mTc-PMT from an early stage after the onset of postoperative cholangitis to better understand the pathophysiology and to guide treatment. We evaluated the clinical utility of HBS and report our treatment strategy for post-PD cholangitis.

Results: HBS was performed in 61 patients after PD. In patients without cholangitis, the RI was promptly excreted from the intrahepatic bile ducts through the anastomosis into the elevated jejunal limb and flowed distally over time. In patients suspected of having stenotic cholangitis, RI accumulation was observed at the anastomosis, with only minimal excretion into the elevated jejunal limb. In contrast, in patients suspected of having non-stenotic cholangitis, although biliary excretion from the liver was preserved, RI stagnation (bile stasis) was observed within the elevated jejunal limb near the anastomosis. Anastomotic dilation was effective for stenotic cholangitis. When we reviewed the circumstances at onset of non-stenotic cholangitis with each patient, triggers such as high-fat meals, constipation, exercise, and overwork were suspected. We introduced an intervention consisting of prokinetic agents to prevent bile stasis and lifestyle guidance to avoid these potential triggers, which was associated with a significant reduction in the frequency of cholangitis comparing the 6 months before and after the intervention ($p < 0.01$).

Conclusions: HBS reflected the underlying pathophysiology of post-PD cholangitis. An HBS-guided, proactive treatment strategy may help control recurrent cholangitis after PD.

P5-1 Clinical outcomes of endoscopic ultrasound-guided ethanol ablation for pancreatic neuroendocrine tumors

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Background:

Surgical resection is recommended as the first-line treatment for pancreatic neuroendocrine neoplasms (P-NENs), according to the 2019 Japanese clinical practice guidelines for gastroenteropancreatic neuroendocrine neoplasms. However, pancreatic surgery is highly invasive, and the optimal management strategy for small, low-grade P-NENs remains controversial. Recently, endoscopic ultrasound (EUS)-guided ethanol ablation (EUS-EA) has been proposed as a minimally invasive treatment alternative. This study aimed to evaluate the clinical outcomes, efficacy, and limitations of EUS-EA for small P-NENs.

Methods:

From April 2021 to November 2025, 13 patients with P-NENs who underwent EUS-EA at our institution were retrospectively analyzed. The inclusion criteria were: (1) non-functional P-NEN or insulinoma confirmed by biopsy, (2) World Health Organization 2017 Grade 1 classification, and (3) tumor diameter ≤15 mm. Under EUS guidance, anhydrous ethanol was injected directly into the tumor using a 25-gauge needle. Evaluated outcomes included patient characteristics, procedural details (number of sessions, puncture attempts, ethanol volume, and procedure time), complications, occurrence of pancreatitis, length of hospital stays, complete ablation rate, and post-treatment clinical course. The efficacy of the initial EUS-EA was assessed at 3–5 days after the procedure. Complete ablation was defined as the complete disappearance of tumor enhancement on contrast-enhanced computed tomography or contrast-enhanced EUS at one month after treatment.

Results:

Thirteen patients were included, with a median age of 59 years (interquartile range [IQR], 49–65); nine patients were female. Twelve patients had non-functional P-NENs, and one had insulinoma. The median tumor diameter was 8.9 mm (IQR, 7.0–11.9). Nine patients were treated with a single EUS-EA, and four patients underwent an additional EUS-EA 4–5 days later. In the initial session, nine patients underwent one puncture and four underwent two; in the second session, all four patients underwent a single puncture. The median initial ethanol volume was 0.7 mL (IQR, 0.6–1.6), and the median initial procedure time was 24.0 minutes (IQR, 20.0–28.5). Early complications (within one month) occurred in four patients. Patients who developed pancreatitis used significantly more ethanol in the initial session than those who did not (median 1.35ml vs. 0.6ml; P = 0.03). The median hospital stay was 5 days (IQR, 5–6.5). The complete ablation rate was 84.6% (11/13 patients). During a median follow-up period of 20.5 months (IQR, 14.5–108), no local recurrence was observed in patients who achieved complete ablation.

Conclusion:

EUS-EA demonstrated favorable efficacy for small (≤15 mm), non-functional Grade 1 P-NENs and may represent a viable minimally invasive treatment option for selected patients. However, careful attention should be paid to the risk of procedure-related pancreatitis, particularly when larger volumes of ethanol are administered.

P5-2 Validity of Newly Defined Tumor Location–Based Regional Lymph Nodes and Implications for Treatment Strategies in Pancreatic Cancer

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Background:
A consensus regarding the optimal extent of
lymph node dissection for pancreatic cancer has not yet been
achieved. In the revised 8th edition of the General Rules for the Study of Pancreatic Cancer, regional lymph nodes were newly defined according to tumor location. This study aimed to evaluate the validity of these regional lymph node classifications by tumor location in pancreatic cancer.
Methods:
A total of 183 patients with pathologically confirmed invasive pancreatic ductal adenocarcinoma who underwent pancreatectomy between January 2008 and January 2022 were retrospectively analyzed. Lymph node stations were classified as regional or non-regional according to the 8th edition of the General Rules for the Study of Pancreatic Cancer. The frequency of metastasis to each lymph node station was calculated as the number of patients with metastasis divided by the number of patients in whom the station was dissected. The efficacy index (EI) was calculated by multiplying the metastatic frequency by the 3-year survival rate of patients with metastasis at the corresponding station. Regional lymph node stations dissected in fewer than 30% of the total cohort were excluded from the analysis as insufficiently dissected.
Results:
Overall, lymph node metastasis was observed in 53.0% of patients (97/183), and the 3-year overall survival rate was 35.1%. The metastatic frequency and EI of regional lymph nodes according to tumor location were as follows.
For pancreatic head tumors (Ph, n = 99): No. 6 (6.2%, EI 1.54), No. 8a (7.6%, 1.90), No. 8p (3.0%, 0.00), No. 12 (10.6%, 2.12), No. 13 (50.0%, 16.67), No. 14 (13.9%, 2.78), and No. 17 (35.0%, 0.00).
For pancreatic body tumors (Pb, n = 39): No. 8a (6.9%, 0.00), No. 10 (0.0%, 0.00), No. 11p (39.5%, 11.28), No. 11d (20.0%, 10.00), and No. 18 (25.9%, 3.71).
For pancreatic tail tumors (Pt, n = 45): No. 8a (0.0%, 0.00), No. 10 (7.1%, 3.57), No. 11p (24.4%, 9.15), No. 11d (18.6%, 5.32), and No. 18 (11.1%, 0.00).
Lymph node stations with an EI of 0 were categorized into two patterns: those without metastatic cases (non-metastasis type) and those with metastatic cases but no 3-year survivors (non-survival type). Among patients with metastasis to non-survival type lymph nodes, 67% (4/6) experienced early recurrence within 6 months after surgery, and the median survival time was 497 days.
Conclusions:
This study supports the validity of tumor location–based regional lymph node classification in pancreatic cancer. However, certain lymph node stations showed no metastatic involvement (EI = 0, non-metastasis type), suggesting that reclassification as non-regional lymph nodes may be appropriate. Furthermore, metastasis to lymph node stations with an EI of 0 and no long-term survivors (non-survival type) may reflect systemic disease, for which reconsideration of surgical indications and intensification of postoperative adjuvant therapy should be discussed.

P5-3 Long-term outcomes and recurrence patterns after conversion surgery for unresectable pancreatic cancer

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Background

Conversion surgery (CS) for initially unresectable pancreatic cancer (URPC) has been increasingly reported to improve long-term survival in selected patients. However, the optimal duration of preoperative therapy, appropriate selection criteria, and postoperative recurrence patterns remain poorly defined.

Methods

We retrospectively analyzed 45 patients with URPC who underwent CS at our institution between July 2012 and December 2024, including 34 patients with locally advanced tumor and 11 with distant metastatic lesion. Institutional criteria for CS required sustained tumor regression after systemic chemotherapy with or without radiotherapy for ≥6 months in UR-LA and ≥12 months in UR-M, normalization of tumor markers, and complete disappearance of FDG uptake on positron emission tomography.

Results

The median duration of preoperative therapy was 11.6 months (range, 4.2–34.1). Preoperative treatment regimens included gemcitabine plus nab-paclitaxel (45%), FOLFIRINOX (22%), chemoradiotherapy (22%), and other regimens (11%). Surgical procedures consisted of pancreaticoduodenectomy in 28 patients, distal pancreatectomy in 15, and total pancreatectomy in 2. Portal vein resection was performed in 51% of patients, and arterial resection in 24%. No postoperative mortality within 90 days was observed. A pathological treatment response of Grade III or higher was achieved in 24% of patients, and the R0 resection rate was 84%. The median overall survival from the initiation of treatment was 74.7 months, with a 5-year survival rate of 59.2%. Tumor recurrence occurred in 64% of patients. Recurrence patterns (overlapping) included local recurrence (45%), lung (24%), peritoneum (21%), lymph nodes (17%), and liver (3%). Multivariate analysis identified radiological superior mesenteric artery involvement (hazard ratio [HR] 5.50, $p = 0.005$) and microscopic venous invasion (HR 6.09, $p = 0.035$) as independent predictors of poor recurrence-free survival after resection.

Conclusions

Conversion surgery following prolonged preoperative therapy that achieves both radiological and biological remission in URPC is associated with favorable long-term survival and a notably low incidence of postoperative liver metastasis. However, the relatively high rate of local recurrence and the negative prognostic impact of superior mesenteric artery involvement highlight the need for further optimization of treatment strategies, including enhanced local disease control.

P5-4 A fatal case with hepatic lymphorrhea–related massive ascites after conversion surgery for M1 (LYM) pancreatic tail cancer treated with lymphatic embolization

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The patient was a 74-year-old woman with unresectable pancreatic tail cancer and para-aortic lymph node metastasis. EUS-FNA revealed undifferentiated carcinoma. After one year of chemotherapy (11 cycles of GnP followed by 9 cycles of gemcitabine), tumor markers normalized and the para-aortic nodes markedly regressed. She had non-alcoholic hepatitis with progressive hepatic atrophy.

Staging laparoscopy showed no macroscopic distant metastasis; thus, open distal pancreatectomy with para-aortic lymph node sampling was performed as conversion surgery. Operative time was 417 min and blood loss was 1,036 mL.

Postoperatively, high-output serous drainage developed (1 L/day in week 1, rising to 4 L/day in week 2). Because fasting and octreotide from POD 18 were ineffective, inguinal lymphangiography was performed on POD 23, which showed no leakage. She later developed septic shock and was admitted to the ICU. Ascitic polymorphonuclear leukocytes exceeded 1,000/μL, and secondary peritonitis due to a pancreatic fistula was diagnosed. Despite additional drainage and antibiotics, output persisted and progressive hypoalbuminemia and coagulopathy required daily fresh frozen plasma and albumin.

Hepatic lymphorrhea was suspected due to refractory high-output ascites with worsening hepatic dysfunction. Intrahepatic lymphangiography on POD 84 demonstrated leakage from the hepatogastric and hepatoduodenal ligaments, followed by lymphatic embolization. Because the response was transient, a second embolization was performed on POD 119, after which lymphorrhea resolved. Although blood pressure temporarily stabilized, systemic edema and respiratory failure progressed. She did not respond to hemofiltration and died on POD 131.

This case highlights the need to carefully consider conversion surgery in patients with pancreatic cancer and pre-existing liver dysfunction and to include hepatic lymphorrhea in the differential diagnosis of refractory postoperative high-output ascites.

P6-1 Surgical resections for hepatocellular carcinomas arising from Fontan-associated liver disease; open, laparoscopic and robotic hepatectomies

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[Background and Purpose]
Only a few reports have described the treatment of hepatocellular carcinoma (HCC) arising from Fontan-associated liver disease (FALD-HCC). While some case reports state that surgical resection is inappropriate because of excessive intraoperative bleeding caused by congestive liver, we have performed liver resection in 12 cases of FALD-HCC. This study aims to clarify their characteristics and identify appropriate patient selection.

[Methods]
Between March 2018 and April 2025, liver resection was performed for 12 FALD-HCCs in 9 patients at our institution. These 12 operations were reviewed, and short- and long-term outcomes were compared with those of 216 patients undergoing initial non-FALD-HCC resection during the same period. The 12 FALD-HCC cases were also divided into two groups according to intraoperative blood loss, and background factors were compared to investigate determinants of bleeding.

[Results]
Among the 12 FALD-HCCs, 9 were initial and 3 were recurrent tumors. The interval from Fontan or Fontan-equivalent cardiac surgery to HCC diagnosis averaged 33 years (18–47 years). Surgical approaches included open surgery in 6 cases, laparoscopy in 4, and robot-assisted resection in 2; 7 patients underwent partial resection, and 5 underwent anatomical resection.
Compared with non-FALD initial HCC cases, the FALD group was significantly younger (37 vs. 69 years, $p<0.0001$) and had a lower BMI (19.0 vs. 24.1, $p=0.0002$). Advanced fibrosis/cirrhosis (F3–4) was more common in the FALD group ($p=0.03$). Intraoperative blood loss was greater in the FALD group (1695 mL vs. 520 mL, $p=0.0003$). Factors associated with blood loss >1000 mL included central venous pressure (CVP) >12 mmHg, tumor size >2 cm, tumor depth ≥3 cm from the liver surface, and presence of vascular invasion.
Among the 9 patients who had been regularly followed with imaging after Fontan surgery, tumor size tended to be smaller and blood loss lower. The mean follow-up period in the FALD group was 32.1 months, during which 4 of 9 patients experienced recurrence. Recurrence-free survival did not differ significantly between groups.

[Discussion]
FALD-HCC typically affects younger and leaner patients, who nonetheless often present with cirrhosis. Reflecting hepatic congestion, intraoperative bleeding tends to be greater. However, when CVP is <12 mmHg and tumors are within 3 cm of the liver surface, mean blood loss is only 50 mL, with no difference among open, laparoscopic, and robotic approaches. Appropriate patient selection is therefore crucial.

[Conclusion]
Long-term outcomes are comparable between FALD and non-FALD HCC. Particularly for tumors ≤2 cm and located near the liver surface with CVP ≤12 mmHg, surgical resection—including minimally invasive approaches—is a feasible treatment option. Regular imaging follow-up is essential to enable such early intervention.

P6-2 Evaluation of the geographic distribution of patients with hepatocellular carcinoma and treatments in Japan using data from the Japanese national database

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The National Database of Health Insurance Claims and Specific Health Checkups of Japan (NDB), provided by the Ministry of Health, Labour and Welfare (MHLW), is an exhaustive repository that can be used to understand the nationwide epidemiology of hepatocellular carcinoma (HCC) in Japan. This study was conducted to clarify the geographic distribution of patients with HCC and treatments performed in each region of Japan using data from the NDB. A retrospective analysis was performed to determine the number of patients diagnosed, with HCC (International Classification of Diseases, 10th edition, code C22.0), who received treatment between 2016 and 2020. Number of incidences of HCC per 100,000 individuals in each Japanese region are 76 (Hokkaido), 63 (Tohoku), 55 (Kanto), 58 (Tokai), 74 (Hokuriku), 77 (Kinki), 93 (Chugoku), 101 (Shikoku), 93 (Kyushu), and 37 (Okinawa). Transarterial embolization/transarterial chemoembolization and curative treatments, including laparoscopic liver resection (LLR), open liver resection, and radiofrequency ablation, were the most frequently performed treatments in all regions, followed by systemic therapy. The proportion of patients receiving LLR was lowest in the Shikoku region (6.7%), which also had the lowest frequency of institutions certified by the Japanese Society of Hepato-Biliary-Pancreatic Surgery (JSHBPS) relative to the number of patients with HCC. Although the incidence of HCC varies across regions in Japan, the most frequently performed treatments remain consistent nationwide. This suggests that HCC treatment practices are largely standardized, regardless of geographic location. Certification by the JSHBPS appears to play a role in patient access to LLR.

P6-3 Clinical significance of adding THAD and pneumobilia to the TG18 criteria for diagnosing postoperative cholangitis after biliary reconstruction

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Backgrounds

Postoperative cholangitis (POC) is a common late complication following biliary reconstruction. However, no specific diagnostic criteria for POC have been established, and the Tokyo Guidelines 2018 (TG18) for acute cholangitis are generally applied. Recently, incorporating transient hepatic attenuation differences (THAD) and pneumobilia into the TG18 criteria has been proposed for POC diagnosis. This study evaluated the diagnostic performance of modified TG18 criteria, which include these imaging findings, in patients with POC.

Methods

We reviewed 635 patients who underwent biliary reconstruction between January 2010 and December 2020 at our institution, with a follow-up period extending through March 2023. POC was defined as a moderate or severe infection requiring hospitalization with no identifiable source of infection other than the bile duct.

Results

POC occurred in 81 patients (12.7%), with the first onset occurring within 1 year in 8.2% and within 2 years in 13.5%. A total of 152 POC episodes requiring hospitalization were observed in 69 patients. Using conventional TG18 criteria, 74 episodes (48.7%) were classified as "confirmed," 56 (36.8%) as "suspected," and 22 (14.5%) as non-cholangitis. With the modified TG18 criteria, 102 episodes (66.7%) were confirmed, 42 (27.5%) suspected, and only 8 (5.2%) were categorized as non-cholangitis, demonstrating significantly improved diagnostic sensitivity ($p < 0.01$). However, the performance rate of arterial phase CT at the time of POC diagnosis was low, at 38.5%.

Conclusions

Incorporating THAD and pneumobilia as imaging findings into the conventional TG18 criteria significantly enhances the diagnostic accuracy for POC after biliary reconstruction. Furthermore, the diagnostic yield could be further improved by ensuring that dynamic CT is consistently performed at the time of suspected onset.

P6-4 Preoperative risk stratification of distal cholangiocarcinoma using tumor size and CA19-9

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[Object] Preoperative prognostic stratification for distal cholangiocarcinoma (DCC) has not been established. We previously reported that CT-measured tumor size is a prognostic factor in perihilar cholangiocarcinoma; however, whether this applies to DCC remains unknown. This study aimed to evaluate preoperative prognostic stratification using CT findings and CA19-9 in DCC.

[Methods] We reviewed 135 patients who underwent pancreaticoduodenectomy for DCC between 2011 and 2022. After excluding patients with inadequate pre-drainage CT (n=20) and obvious IPNB (n=5), 109 patients were analyzed. Tumor size was measured as the maximum diameter perpendicular to the bile duct on coronal CT images. Prognostic stratification combining CA19-9 (cutoff: 37 U/mL) and tumor size (cutoff: 14mm) was examined using spline curve analysis. Primary endpoints were overall survival (OS) and recurrence-free survival (RFS).

[Results] Median tumor size was 9.9mm; only 16 patients (15%) had tumors ≥14mm. Elevated CA19-9 was observed in 45 patients (41%). Tumor size alone showed limited prognostic value (OS: p=0.099). In CA19-9 stratified spline analysis, tumor size had no prognostic impact in the CA19-9 low group (OS: p=0.84, RFS: p=0.96), whereas larger tumors tended to worsen prognosis in the CA19-9 high group (OS: p=0.064, RFS: p=0.068). Patients with elevated CA19-9 and tumor size ≥14mm (n=7, 6%) showed 100% mortality and recurrence. Multivariate analysis confirmed this as an independent prognostic factor (OS: HR 4.08, p=0.001; RFS: HR 2.90, p=0.013). Median OS/RFS was 26/9 months in the high-risk group versus 58/30 months in the low-risk group. Excluded IPNB cases (n=5) showed 5-year OS/RFS of 80%.

[Conclusions] In DCC, patients with elevated CA19-9 and tumor size ≥14mm have extremely poor prognosis and may be candidates for neoadjuvant therapy.

P6-5 Surgical outcomes of eight cases of intracholecystic papillary neoplasm

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Introduction: Intraductal papillary neoplasm of the bile duct (IPNB) was proposed in the 2010 WHO classification as a non-invasive papillary neoplasm distinct from conventional biliary tract carcinoma, characterized by neoplastic biliary epithelial cells with delicate fibrovascular cores. A similar lesion arising in the gallbladder is termed intracholecystic papillary neoplasm (ICPN). ICPN accounts for approximately 0.4–0.8% of gallbladder resection specimens, and reports describing its surgical outcomes remain limited.

Methods: Patients with pathologically confirmed ICPN who underwent surgical resection between 2010 and 2025 were retrospectively reviewed. Clinical characteristics, imaging findings, pathological features, and postoperative outcomes were analyzed.

Results: Eight patients were identified, including one who underwent hepatectomy for liver metastasis after laparoscopic cholecystectomy at another hospital. All patients were female, with a mean age of 72 years. Pancreaticobiliary maljunction was observed in two patients. Contrast-enhanced elevated lesions were detected on CT, MRI, or EUS. Five patients underwent PET, all demonstrating increased uptake in the tumor. Surgical treatment for the primary lesion consisted of extended cholecystectomy with resection of the gallbladder bed in five patients (including one additional resection after prior laparoscopic cholecystectomy) and whole-layer cholecystectomy in two patients. Extrahepatic bile duct resection was performed in two cases. Histologically, three patients had low-grade dysplasia, whereas five had high-grade dysplasia with coexisting invasive carcinoma. The median tumor size was 34 mm (range, 30–56 mm). Tumors were located in the body and/or fundus in six patients and involved the neck in two. Epithelial subtypes included gastric foveolar (n=4), oncocytic (n=2), pyloric gland (n=1), and undetermined (n=1). Gallbladder adenomyomatosis was present in four patients. One patient developed lymph node metastasis and received adjuvant S-1 chemotherapy, followed by hepatectomy for liver metastasis. During a median follow-up of 16 months (range, 1–44 months), no recurrences or deaths were observed.

Conclusion: Invasive carcinoma coexisted in five of eight cases, indicating that ICPN frequently harbors malignant potential. Curative surgical resection should therefore be considered the first-line treatment.

P7-1 Internal hernia between the left external iliac artery and vein after surgery for endometrial carcinoma: a case report

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Background: Internal hernia through pelvis after pelvic lymph node dissection is very rare but may cause strangulated small bowel obstruction.

Case: A 68-year-old woman with prior surgery for endometrial carcinoma (3 years earlier) presented with acute abdominal pain. CT revealed dilated small bowel loops and a closed-loop sign posterior to the left external iliac artery. Emergency laparotomy identified a hernia orifice between the left external iliac artery and vein, with approximately 20 cm of ileum incarcerated. After reduction, bowel viability improved and resection was unnecessary. The hernia portal was covered via fixation of the sigmoid mesocolon. The patient had an uneventful recovery and was discharged day 11.

Discussion: Internal hernia beneath skeletonized pelvic vessels is very rare (≈0.9 % after pelvic lymphadenectomy) but should be considered in patients presenting with small bowel obstruction after pelvic surgery. CT may reveal characteristic findings. Preventive measures include closing or covering skeletonized vessels.

Conclusion: This case highlights the importance of awareness of this complication, prompt diagnosis and tailored surgical repair.

P7-2 Successful Resection of a Large Second-Portion Duodenal Tumor Using Duodenal Laparoscopic and Endoscopic Cooperative Surgery (D-LECS): A Case Report

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Background Tumors of the second portion of the duodenum pose significant therapeutic challenges due to the narrow lumen, thin duodenal wall, and proximity to vital structures. Although endoscopic submucosal dissection (ESD) is increasingly used for superficial duodenal lesions, large lesions occupying more than half of the luminal circumference carry a high risk of perforation and bleeding, making ESD technically difficult. Duodenal laparoscopic and endoscopic cooperative surgery (D-LECS) has been developed as a hybrid approach to combine precise endoscopic evaluation with controlled laparoscopic full-thickness resection. We report a case of a large duodenal tumor in the second portion successfully managed using D-LECS without the need for an excessively invasive surgical procedure.

Case Presentation A patient presented with a 40-mm lesion on the free wall of the second portion of the duodenum. Preoperative endoscopy suggested a duodenal adenoma. Because the lesion occupied more than half of the duodenal lumen, conventional endoscopic resection was considered unsafe. After laparoscopic mobilization of the duodenum, the lesion was evaluated endoscopically. Circumferential marking was performed, followed by mucosal incision along the markings. From the caudal side, a laparoscopic full-thickness incision was created, intentionally opening the lumen into the peritoneal cavity under endoscopic guidance. The tumor was then resected en bloc as a laparoscopic full-thickness specimen.

The defect was closed using a two-layer hand-sewn technique with 3-0 V-Loc for the inner layer, followed by seromuscular reinforcement. An omental patch was applied over the suture line using 4-0 Prolene. Intraoperative endoscopy confirmed adequate luminal patency without stenosis. The postoperative course was uneventful, oral intake resumed without difficulty, and the patient was discharged on postoperative day 11. Final pathology revealed tubular adenocarcinoma with negative margins, confirming curative resection.

Discussion Large superficial duodenal tumors, especially those occupying more than half of the luminal circumference, pose a high procedural risk during ESD. D-LECS offers a safe and effective alternative that retains the benefits of endoscopic visualization while providing the ability to perform controlled laparoscopic full-thickness resection. In this case, D-LECS enabled precise tumor removal with a low risk of perforation, secure closure of the defect, and a smooth postoperative recovery. The hybrid approach avoided the need for more invasive procedures such as pancreaticoduodenectomy.

Conclusion

D-LECS is a valuable minimally invasive option for large duodenal lesions that are difficult to resect endoscopically. This case demonstrates its safety, feasibility, and ability to achieve curative resection while minimizing surgical invasiveness.

P7-3 Outcomes of Oblique Jejunogastrostomy in Double-Tract Reconstruction after Laparoscopic Proximal Gastrectomy

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Background:

In our institution, double-tract (DT) reconstruction has been routinely employed following laparoscopic proximal gastrectomy (LPG). A key technical issue in DT reconstruction is minimizing food passage into the elevated jejunum to preserve postoperative nutritional status. We developed an original reconstruction technique, oblique jejunogastrostomy (OJG), and report its technical features and surgical outcomes.

Surgical Technique:

In the OJG technique, a linear stapler (60 mm) is applied between the antimesenteric side of the jejunum and the posterior wall of the remnant stomach in an oblique fashion. This configuration intentionally induces torsion of the jejunum distal to the gastrojejunostomy, thereby reducing excessive food flow into the elevated jejunal limb.

Patients and Methods:

Between January 2017 and December 2023, 24 patients underwent LPG with DT reconstruction using the OJG technique. Surgical outcomes, postoperative complications, and nutritional parameters were retrospectively evaluated.

Results:

The median patient age was 71 years (range, 63–87), with 17 men and 7 women. The median operative time was 307 minutes (range, 88–540), and the median estimated blood loss was 0 mL (range, 0–150). The median postoperative hospital stay was 11 days (range, 7–31). No postoperative complications of Clavien–Dindo grade II or higher were observed.

Regarding nutritional outcomes, the postoperative body weight loss rates at 1 and 2 years were 15.9% and 15.8%, respectively. The preservation rates of serum total protein at 1 and 2 years were 93.7% and 93.3%, and those of serum albumin were 93.1% and 92.6%, respectively.

Conclusions:

The OJG technique can be safely performed and provides favorable postoperative nutritional outcomes. This method appears to be a useful anastomotic option in DT reconstruction following laparoscopic proximal gastrectomy.

P7-4 Treatment Selection in Iatrogenic Esophageal Perforation A single-center experience

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Background

Iatrogenic esophageal perforation is a rare but potentially life-threatening complication of endoscopic procedures. Owing to its low incidence and heterogeneous clinical presentation, optimal treatment strategies—particularly the selection between conservative and surgical management—remain uncertain.

Objective

The aim of this study was to describe our single-center experience with iatrogenic esophageal perforation and to examine how treatment strategies were selected according to clinical presentation and disease severity.

Methods

We retrospectively reviewed patients with iatrogenic esophageal perforation treated at our institution between 2005 and 2025. Patient demographics, etiology of perforation, radiological findings, treatment strategies (conservative or surgical), and clinical outcomes were evaluated.

Results

Nine patients were detected in this study. Perforation was caused by endoscopic balloon dilation in eight patients and by endoscopic ultrasound in one patient. Conservative management, including fasting, gastric decompression, and antibiotic therapy, was selected in six patients and was successful in all cases. Surgical intervention was required in three patients because of extensive perforation or severe mediastinal contamination. All patients survived to hospital discharge.

Conclusions

Treatment selection depends on disease severity. Severe cases may lose eligibility for definitive reconstruction. Decision making should consider immediate survival and future treatment options.

P7-5 A Case of Primary Pancreatic Carcinosarcoma

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The patient was a woman in her 80s undergoing follow-up at our hospital after surgery for hepatocellular carcinoma and perihilar cholangiocarcinoma. A follow-up CT scan revealed a previously undetected 5-cm mass on the ventral aspect of the pancreatic head. EUS-FNA revealed spindle cells that were partially positive for DOG1. Although a definitive diagnosis was not established, a clinical diagnosis of duodenal GIST was made. Given the high invasiveness of surgery, imatinib therapy was initiated with the intention of performing resection following tumor shrinkage. During the two-week treatment period, the patient developed anemia caused by tumor invasion into the duodenal mucosa, necessitating transcatheter arterial embolization (TAE). Subsequent CT imaging showed tumor regression; however, due to severe adverse events associated with imatinib, surgical intervention was elected. One month after TAE, subtotal stomach-preserving pancreaticoduodenectomy (SSPPD) was performed. The postoperative course was uneventful, and the patient was discharged on postoperative day 22. Histopathological examination of the resected specimen revealed a mixture of spindle cell areas exhibiting severe nuclear atypia and well-differentiated adenocarcinoma areas with tubular proliferation, leading to a diagnosis of primary pancreatic carcinosarcoma. The sarcomatous component remained DOG1-positive in the resected specimen. Surgical margins were negative. The patient was followed up without adjuvant therapy until liver metastasis was detected 20 months postoperatively. Although gemcitabine plus nab-paclitaxel (GnP) therapy was initiated and achieved a partial response (PR), the patient died 25 months after the surgery.

Pancreatic carcinosarcoma is a rare tumor classified as a variant of undifferentiated carcinoma of the pancreas in the 2019 WHO classification, whereas the Japanese classification lacks specific criteria for this entity. While the prognosis is generally poor, with a reported median survival of only 8 months, resection may improve outcomes. This case represents a rare clinical course in which tumor shrinkage was achieved via preoperative TAE, resulting in a relatively long recurrence-free survival of 20 months.

P8-1 The Effect of Preoperative Biliary Stent placement and Prophylactic Antibiotics Administration on Pancreatic Fistula

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Background: Postoperative pancreatic fistula (POPF) is one of the most clinically significant complications following pancreaticoduodenectomy. Although preoperative biliary stent (PBS) has been identified as a risk factor for surgical site infection (SSI), its role as a risk factor for POPF remains controversial. This study aimed to investigate the incidence of POPF, focusing particularly on PBS and prophylactic antibiotics.

Methods: We retrospectively analyzed 282 patients who underwent pancreaticoduodenectomy at our institution between January 2019 and March 2024. POPF was defined according to the International Study Group on Pancreatic Surgery (ISGPS) criteria; grade B and C were defined as clinically relevant POPF (CR-POPF). Logistic regression analysis was used to evaluate the association between CR-POPF and clinical variables.

Results: The breakdown of diagnoses in the study population was as follows: pancreatic cancer (n = 146), biliary tract cancer (n = 68), intraductal papillary mucinous neoplasm (n = 35), pancreatic neuroendocrine tumor (n = 20), and other diagnoses (n = 13). There were 157 males and 125 females, with a median age of 71 years. PBS was placed in 124 patients (44%). Prophylactic antibiotics were administered to 121 (43%) patients with Cefazolin (CEZ), 157 (56%) patients with piperacillin/tazobactam (PIPC/TAZ), and 4 (1%) patients with other antibiotics. CR-POPF occurred in 65 patients (23%), including grade B in 63 patients (22%), and grade C in two patients (1%). Soft pancreatic texture, non-pancreatic cancer, male sex, and a main pancreatic duct diameter of less than 3.2 mm were significantly associated with the occurrence of CR-POPF. In contrast, the type of prophylactic antibiotic and the presence of PBS were not significantly associated with CR-POPF. However, among patients with PBS, CR-POPF occurred more often in those who received CEZ than in those who received PIPC/TAZ (50% vs 20%; odds ratio 3.85; 95% confidence interval 1.41–10.67; $p < 0.05$). Among patients with PBS, cultures from SSI more frequently detected *Enterococcus* species than cultures from patients without stents (60% vs. 25%; odds ratio 4.50; 95% confidence interval 1.43–15.45; $p < 0.05$).

Conclusion: Patients with PBS who received CEZ as prophylactic antibiotics had a higher incidence of CR-POPF than those who received PIPC/TAZ. Furthermore, the bacteria detected in SSI from patients with PBS were predominantly enteric species, suggesting that preoperative biliary duct contamination may be associated with POPF. Therefore, selecting prophylactic antibiotics based on PBS status may reduce the incidence of CR-POPF.

P8-2 Clinical Significance of Preoperative Serum Carbohydrate Antigen 19-9 Levels as a Marker of Biological Borderline Resectable Perihilar Cholangiocarcinoma

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Background: The concept of biological borderline resectable (BR) pancreatic ductal adenocarcinoma defined based on preoperative serum carbohydrate antigen 19-9 (CA 19-9) levels has been established. We aimed to define optimal thresholds of preoperative serum CA 19-9 levels as indicators of biological BR perihilar cholangiocarcinoma (pCCA).

Methods: Patients who underwent upfront surgical resection for pCCA were retrospectively reviewed. To avoid overestimation of CA 19-9 levels due to biliary obstruction or cholangitis, patients with elevated serum total bilirubin levels (>2.0 mg/dL), white blood cell counts (>9,500/μL), and C-reactive protein levels (>2.0 mg/dL) were excluded. Patients with CA 19-9 levels below the detection limit (suspected negative for Lewis antigen) were also excluded. The most discriminative CA 19-9 cutoff points for predicting recurrence-free survival (RFS) were determined using recursive partitioning with the log-rank test.

Results: A total of 130 patients were included. Recursive partitioning identified CA 19-9 cut-off values of 20 and 500 U/mL. Based on these thresholds, patients were classified into three grades: low (< 20 U/mL, n = 41), intermediate (< 500 U/mL, n = 73), and high (> 500 U/mL, n = 16). The median RFS of these three grades were 38.3, 25.9, and 7.8 months, respectively. Patients with high-grade BR pCCA had significantly worse RFS than those with the other grades ($p < 0.001$).In the multivariable analysis, preoperative serum CA 19-9 level was identified as an independent risk factor for RFS.

Conclusions: Preoperative CA 19-9 levels ≥500 U/mL may serve as a criterion for defining biological BR pCCA.

P8-3 Three Cases of Gallbladder Hemorrhage Treated by Cholecystectomy

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Gallbladder hemorrhage is a rare condition, accounting for less than 1% of upper gastrointestinal bleeding. However, it requires prompt treatment when it occurs. We report three cases of gallbladder hemorrhage we encountered.
Case 1: An 80-year-old woman was emergency transported to our hospital with abdominal pain as the chief complaint. Contrast-enhanced CT revealed ascites, an enlarged gallbladder with an ill-defined base, and extravasation of contrast medium into the gallbladder lumen and abdominal cavity. Diagnosed with gallbladder tumor and intra-abdominal hemorrhage, the plan was to proceed with interventional radiology (IVR). Angiography revealed abundant vascular supply to the gallbladder from the right hepatic artery, which was subsequently embolized. Subsequent CT showed free air, leading to emergency surgery on the second postoperative day. Although no active bleeding was present, the gallbladder was perforated, and a white, elevated lesion was noted in the body. A subtotal cholecystectomy was performed. Pathological examination confirmed gallbladder cancer. Case 2 involved a 91-year-old male. Presenting fever and abdominal pain, he was referred to our hospital from a previous physician with a diagnosis of acute cholecystitis. Diagnosed with moderate acute cholecystitis, PTGBD was performed on the second day of hospitalization. However, intrahepatic hemorrhage occurred on the seventh day and recurred thereafter. A contrast-enhanced CT scan, previously deferred due to renal impairment, revealed an aneurysm in the cystic artery, suggesting bleeding from this site. Laparoscopic cholecystectomy was performed on the 19th hospital day. Pathological examination confirmed acute cholecystitis. Case 3: A 72-year-old male with a history of heart disease and on anticoagulant therapy was transported to our hospital with abdominal pain as the chief complaint. Contrast-enhanced CT revealed gallstones and contrast-enhancing contents within the gallbladder, along with fluid accumulation around the gallbladder. Surgery was planned for the same day due to suspected acute cholecystitis and gallbladder hemorrhage. The gallbladder was perforated, and bile containing blood had spread into the abdominal cavity. There were no inflammatory findings in the gallbladder itself. Laparoscopic cholecystectomy was performed, and pathological examination also diagnosed acute cholecystitis in this case.
Causes of gallbladder hemorrhage include inflammation, tumors, iatrogenic factors, and atherosclerosis, with associated anticoagulant therapy being a potential risk factor. While cholecystectomy is the definitive treatment for gallbladder hemorrhage, its causes are diverse, necessitating multidisciplinary management tailored to the specific pathology.

P8-4 Surgical Safety after Preoperative Chemotherapy for Perihilar Cholangiocarcinoma: Multi-Institutional Propensity-Matched Analysis

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Background:
Perihilar cholangiocarcinoma (PHCC) is a challenging malignancy that often requires extensive hepatectomy combined with extrahepatic bile duct resection (Hx with EBDR). The effects of preoperative chemotherapy (CTx) on surgical outcomes remain unclear. In this multicentre retrospective cohort study, we aimed to evaluate the surgical and survival outcomes of patients with PHCC who underwent chemotherapy.
Methods:
We retrospectively analyzed 979 patients who underwent Hx with EBDR for PHCC, including 87 patients who received preoperative CTx and 892 controls. Propensity score matching was performed to compare perioperative and pathological outcomes between the two groups.
Results:
In the overall cohort, patients in the CTx group were younger (median age 66 vs. 70 years; $p<0.001$). Operation time was significantly longer in the CTx group (median 668 vs. 622 minutes; $p<0.001$). No significant differences were observed in morbidity rates, including the incidence of liver failure and bile leakage. And mortality rates were also similar. After propensity score matching (n=87 per group), no significant differences were detected in operative time, intraoperative blood loss, morbidity, mortality, or pathological findings, including R0 resection rates. Across the entire cohort, the 5-year overall survival (OS) rates were 35.4% in the CTx group and 41.1% in the control group ($p=0.162$). In the matched cohort, the 5-year OS rates were35.4% and 45.0% ($p=0.752$), respectively.
Conclusions:
Preoperative chemotherapy for PHCC is associated with comparable surgical morbidity and mortality despite longer operative times. Propensity score–matched analysis suggests that preoperative CTx does not adversely affect surgical or pathological outcomes.

P8-5 Three Cases of Jejunal Perforation Following Billroth II Gastrojejunostomy with Braun Anastomosis

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Background

Braun anastomosis is commonly added to Billroth II reconstruction to prevent bile reflux into the remnant stomach. By reducing bile reflux, this procedure is considered to have several advantages, including prevention of delayed gastric emptying, afferent loop syndrome, and a reduced risk of remnant gastric cancer. For these reasons, Braun anastomosis is routinely performed during pancreatoduodenectomy in our institution. However, B-II/Braun reconstruction may reduce bile flow to the efferent limb, potentially leading to insufficient neutralization of gastric acid and an increased risk of acid-related mucosal injury.

Case Presentation

We report three cases of jejunal perforation following B-II/Braun reconstruction. In all cases, perforation occurred on the anterior wall of the efferent jejunal loop adjacent to the gastrojejunostomy.

Case 1 was a man in his 70s who underwent subtotal stomach-preserving pancreatoduodenectomy (SSPPD) with B-II/Braun reconstruction for pancreatic head cancer and subsequently developed perforative peritonitis, which was treated by suture closure and omental patching. Case 2 was a woman in her 70s who underwent SSPPD with B-II/Braun reconstruction four years earlier. Partial jejunal resection was performed for a large perforation, and her postoperative course was complicated by disseminated intravascular coagulation, respiratory failure, and intracerebral hemorrhage. Case 3 was a man in his 60s who underwent laparoscopic B-II/Braun gastrojejunostomy for duodenal stricture after acute pancreatitis. Laparoscopic suture closure with an omental patch was successfully performed.

The three cases shared several common features: all patients had undergone B-II/Braun reconstruction, the perforation occurred at the same site in the efferent jejunal loop adjacent to the gastrojejunostomy, and none of the patients were receiving proton-pump inhibitor therapy at the time of perforation.

Discussion

Jejunal perforation in these cases was considered to be associated with gastric acid-induced mucosal injury. In B-II/Braun reconstruction, bile and pancreatic juice do not reach the gastrojejunostomy, leading to inadequate neutralization of gastric acid. Discontinuation of PPI therapy may therefore trigger relative hyperacidic state, ulcer formation, and subsequent jejunal perforation. These cases suggest that appropriate continuation of acid suppression therapy may be important for reducing the risk of severe complications in patients undergoing B-II/Braun reconstruction.

P8-6 Conversion surgery after intraperitoneal paclitaxel combined with systemic chemotherapy for 8 patients with pancreatic ductal adenocarcinoma positive for peritoneal metastasis

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Background:
Pancreatic ductal adenocarcinoma (PDAC) has an extremely poor prognosis, particularly when accompanied by peritoneal metastasis. Recently, combined intraperitoneal paclitaxel (ipPTX) and systemic chemotherapy has demonstrated potential efficacy in patients with stage IV PDAC with peritoneal dissemination. At our institution, ipPTX-based chemotherapy has been administered to patients with positive ascites cytology or peritoneal metastasis without other distant organ metastases, and conversion surgery (CS) has been considered for selected patients in whom peritoneal disease disappeared after treatment.

Results:
We retrospectively reviewed the surgical outcomes of 8 patients with stage IV PDAC who underwent CS following ipPTX combined with systemic chemotherapy between August 2013 and August 2025. The median age was 65 years; 4 patients were male and 4 were female. Primary tumor locations were the pancreatic body in 7 patients and the pancreatic tail in 1 patient. First-line chemotherapy regimens consisted of S-1 plus intravenous and intraperitoneal paclitaxel or gemcitabine plus nab-paclitaxel combined with ipPTX. The median interval from initiation of intraperitoneal therapy to CS was 6.5 months.
All CS procedures were performed via open surgery. Surgical procedures included distal pancreatectomy (DP) in 6 patients, subtotal stomach-preserving pancreatoduodenectomy (SSPPD) in 1 patient, and distal pancreatectomy with celiac axis resection (DP-CAR) in 1 patient. The median operative time was 295 minutes for DP, 410 minutes for SSPPD, and 642 minutes for DP-CAR. Combined resection of other organs, including the transverse mesocolon and portal vein, was performed in 5 patients. The median intraoperative blood loss was 456 g. Only one patient who underwent DP-CAR required intraoperative transfusion of 2 units of red blood cells, and no postoperative transfusions were needed. Postoperative delayed gastric emptying requiring medical treatment occurred in one patient; no other postoperative complications were observed, and no complications of Clavien–Dindo grade IIIa or higher were reported. Tumor recurrence occurred in 6 patients. The median progression-free survival was 22.7 months, and the median overall survival was 67.7 months.

Conclusions:
Conversion surgery following intraperitoneal paclitaxel combined with systemic chemotherapy for stage IV PDAC with peritoneal metastasis appears to be feasible and safe in the short term. However, its contribution to long-term survival remains unclear, and further investigation with larger cohorts is warranted.

P9-1 Small Bowel Obstruction Caused by a Foreign Body in an Adult with Intestinal Malrotation Requiring Reoperation

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Background:

Intestinal malrotation is a congenital anomaly caused by incomplete rotation and fixation of the midgut during embryonic development. Although typically diagnosed in infancy, it may remain asymptomatic until adulthood, making diagnosis and surgical management challenging. Small bowel obstruction due to an ingested foreign body is also uncommon in adults. The coexistence of these conditions is extremely rare and may result in complex postoperative anatomical problems.

Case Presentation:

A 51-year-old man with Prader–Willi syndrome, intellectual disability, and diabetes mellitus presented with abdominal pain and vomiting. Computed tomography revealed a spherical foreign body impacted in the terminal ileum with marked dilatation of the proximal small intestine. Emergency surgery was performed. Laparoscopy was initiated but converted to open laparotomy because of severe bowel distension. Enterotomy of the terminal ileum allowed removal of the foreign body, which was identified as a Japanese confection enclosed in a rubber balloon. Intraoperatively, intestinal malrotation was noted, and Ladd's procedure was performed, including division of Ladd's bands and repositioning of the small intestine. The operative time was 215 minutes, and blood loss was 80 mL.

Postoperatively, oral intake was resumed; however, the patient developed recurrent vomiting with gastric dilatation. Contrast studies demonstrated stenosis of the horizontal portion of the duodenum. Conservative management was unsuccessful, and reoperation was required. At the second laparotomy, the proximal jejunum that had been repositioned during the initial Ladd procedure was found to be twisted and adherent, resulting in duodenal obstruction. Adhesiolysis was performed, followed by gastrojejunostomy. The patient resumed oral intake on postoperative day 5 and was transferred to a care facility 16 days after the second surgery without further complications.

Conclusion:

This case illustrates the surgical complexity of adult intestinal malrotation complicated by foreign body–induced small bowel obstruction. Even after appropriate Ladd's procedure, postoperative anatomical distortion may occur, leading to duodenal obstruction requiring reoperation. In such situations, prompt recognition and consideration of reoperation should be part of the management approach to achieve favorable clinical outcomes.

P9-2 Necrotizing Ischemic Colitis with Extensive Colonic and Secondary Small Bowel Necrosis Requiring Two Emergency Surgeries: A Case Report

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Introduction

Necrotizing ischemic colitis represents a severe subtype of ischemic colitis characterized by rapid clinical deterioration and extensive bowel necrosis. Early diagnosis and timely surgical intervention are crucial; however, differentiation from non-necrotizing forms in the early phase remains challenging. Delayed intervention may lead to bowel perforation, sepsis, and multiple organ failure. In addition, progressive ischemia may extend beyond the initially affected segments, even after surgical resection. We present a case of necrotizing ischemic colitis with extensive colonic necrosis complicated by secondary small bowel necrosis, successfully managed through staged emergency surgeries.

Case Presentation

A man in his 70s presented to the emergency department with acute lower abdominal pain. Initial contrast-enhanced computed tomography (CT) suggested ischemic colitis without definite radiologic evidence of bowel necrosis or perforation, and conservative management was initiated by the Department of Gastroenterology. However, six hours after admission, the patient developed worsening abdominal pain and peritoneal signs. Repeat contrast-enhanced CT demonstrated progressive ischemic changes predominantly

involving the descending colon, with newly developed findings suspicious for transmural necrosis, prompting urgent surgical consultation.

Exploratory laparotomy revealed extensive transmural necrosis extending from the ascending colon to the sigmoid colon. Subtotal colectomy with stoma creation was performed. The postoperative course was initially uneventful; however, on postoperative day 6, the patient developed recurrent abdominal pain. CT revealed localized small bowel ischemia with perforation near the stoma site. Re-exploration demonstrated skip lesions of small bowel necrosis adjacent to the stoma, necessitating partial small bowel resection of approximately 1 meter, leaving an estimated 1.8 meters of remaining small intestine, along with stoma reconstruction. The patient recovered and was discharged on postoperative day 40.

Discussion

Necrotizing ischemic colitis accounts for approximately 4–13% of ischemic colitis cases and carries high mortality, particularly in cases with extensive colonic involvement. Mortality rates exceeding 60–70% have been reported, and early surgical intervention within 24 hours is crucial for survival. Accurate intraoperative assessment of ischemic extent is difficult because ischemic changes may be more advanced on the mucosal surface than on the serosa. Moreover, ongoing ischemia and skip lesions may lead to secondary ischemic injury in the residual intestine. This case highlights the necessity of meticulous postoperative monitoring and readiness for prompt reoperation to improve outcomes.

Conclusion

Necrotizing ischemic colitis may progress beyond the initially resected segments and cause secondary small bowel necrosis. Surgeons should recognize the potential for ongoing ischemia and maintain vigilant postoperative surveillance with timely reintervention to achieve favorable outcomes.

P9-3 A Case of Solitary Fibrous Tumor (SFT) with Tumor Rupture During Surgical Waiting Period

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Introduction: Solitary fibrous tumor (SFT) is a rare mesenchymal neoplasm. We report a case of peritonitis caused by tumor rupture during the surgical waiting period.

Case: A 70-year-old man was found to have a 12×9 cm pelvic tumor on CT during investigation for constipation. Biopsy at the previous hospital was inconclusive. Tumor resection was scheduled for diagnostic and therapeutic purposes, but he was emergently transported with abdominal pain while waiting. CT showed no obvious peritonitis, and conservative treatment was initiated. However, abdominal pain persisted with worsening inflammatory markers, leading to emergency surgery on day 2. Laparotomy revealed partial rupture of the tumor wall with intra-abdominal leakage. The tumor originated from the sigmoid mesocolon and was resected. Postoperatively, inflammatory markers remained elevated but improved with conservative management. Immunohistochemistry showed CD34 and nuclear STAT-6 positivity, confirming SFT.

Discussion: SFT commonly occurs in the thoracic cavity, with intra-abdominal cases being rare. Reports of peritonitis due to tumor rupture are extremely limited. For large tumors, assessing growth rate through imaging is important; when difficult, the possibility of rupture should always be considered.

P9-4 Solitary gluteal subcutaneous metastasis after curative resection of cecal cancer: a rare presentation preceding systemic metastasis

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Cutaneous and subcutaneous colon cancer metastases to the gluteal or perineal regions are extremely rare. Unlike the local recurrence or tumor implantation observed in rectal cancer, gluteal or perineal colon cancer metastasis likely represents a distinct pathophysiological mechanism. We report a case of a solitary subcutaneous gluteal metastasis that developed after curative resection of cecal cancer. A 58-year-old woman underwent laparoscopic ileocecal resection with D3 lymph node dissection for a stage IIIc cecal adenocarcinoma. Postoperative adjuvant chemotherapy with capecitabine and oxaliplatin was administered for four cycles but discontinued owing to hepatic dysfunction. Nine months postoperatively, the tumor marker levels increased; imaging revealed a subcutaneous mass in the left gluteal region. The gluteal mass was completely resected with clear margins. The histopathological findings were consistent with metastasis from the previously resected cecal carcinoma. Adjuvant capecitabine and oxaliplatin was resumed for four additional cycles. Nine months after reoperation, the patient developed a solitary brain metastasis, which was surgically removed, followed by radiotherapy. Solitary gluteal or perineal subcutaneous metastases from colon cancer are exceptionally rare manifestations of systemic spread, most likely resulting from hematogenous dissemination. Despite curative resection, careful postoperative surveillance is essential owing to the potential for systemic recurrence.

P9-5 Doege-Potter Syndrome Caused by a Giant Solitary Fibrous Tumor of the Greater Omentum

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Introduction: Doege-Potter syndrome is a rare paraneoplastic syndrome characterized by non-islet cell tumor hypoglycemia (NICTH) due to overproduction of insulin-like growth factor-2 (IGF-2), occurring in less than 5% of solitary fibrous tumor (SFT) cases. SFT most commonly arises from the pleura, and those originating from the greater omentum are exceptionally rare. We report a surgically resected case of Doege-Potter syndrome caused by a giant SFT originating from the greater omentum.

Case Presentation: An 83-year-old woman presented with anorexia and recurrent falls. She was transported to a local hospital by ambulance due to upper limb weakness and was found to have hypoglycemia (39 mg/dL). Her symptoms improved following glucose administration. Abdominal computed tomography performed for further evaluation revealed a solid mass measuring approximately 20 cm extending from the lower abdomen to the pelvis. Serum insulin levels were decreased, and adrenocortical hormones were within normal limits, excluding common causes of hypoglycemia such as insulinoma and adrenal insufficiency. Based on imaging findings, SFT was considered in the differential diagnosis, and a causal relationship with the hypoglycemic episodes was suspected. She was referred to our department. Open tumor resection was performed. Intraoperative findings revealed a giant lobulated mass originating from the greater omentum, and the tumor was resected as completely as possible. Following tumor resection, the patient's hypoglycemic symptoms resolved immediately. Histopathological examination revealed proliferation of spindle cells in a fascicular and solid pattern, with necrosis observed in more than 10% of the tumor and a high mitotic count of 20/1.73 mm^2. Immunohistochemical staining showed strong positivity for CD34 and nuclear positivity for STAT6, confirming the diagnosis of SFT. Risk stratification classified the tumor as high-risk. Comparison of serum IGF-II levels before and after surgery demonstrated a significant postoperative decrease, confirming the causal relationship between the tumor and hypoglycemia. The patient recovered uneventfully and was discharged on postoperative day 6. At 5-month follow-up, there has been no evidence of tumor recurrence or recurrence of hypoglycemia.

Conclusion: We experienced an extremely rare surgically resected case of Doege-Potter syndrome caused by a greater omentum-derived SFT. Surgical resection resulted in immediate resolution of hypoglycemia. As this case was classified as high-risk with an elevated risk of recurrence, long-term follow-up is necessary.

P10-1 Comparison of initial phase of learning curve Between Robot-Assisted and Laparoscopic Surgery for Novice Surgeons: a scoping review

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Background:
Robot-assisted surgery has rapidly expanded since its clinical introduction in 1997. Owing to technological features such as three-dimensional visualization, multi-articulated instruments, motion scaling, and tremor suppression, robotic systems have been reported to shorten the learning curve compared with conventional laparoscopic surgery. However, these findings have largely been demonstrated in surgeons with a certain level of prior experience. Whether novice surgeons should prioritize laparoscopic training before transitioning to robot-assisted surgery therefore remains a matter of debate. This scoping review aims to compare the initial phase of learning curves associated with robot-assisted and laparoscopic surgery in novice surgeons.

Methods:
A systematic scoping review was conducted in accordance with the PRISMA-ScR guidelines. PubMed/MEDLINE and the Cochrane Central Register of Controlled Trials were searched from inception to January 30, 2025. Studies comparing robot-assisted and laparoscopic training in novice surgeons, defined as participants up to the resident level, were included. Data regarding training tasks, environments, outcome measures, and performance results were extracted. Methodological quality was assessed using the Medical Education Research Study Quality Instrument (MERSQI).

Results:
Fourteen studies met the inclusion criteria. Most studies evaluated basic surgical tasks, including peg transfer, suturing, knot tying, and pattern cutting, primarily using box trainers or virtual reality simulators. Task completion time was assessed in all studies, with 11 reporting significantly faster performance in the robotic group for at least one task, particularly during early learning phases. Error-related outcomes were evaluated in eight studies, with most demonstrating fewer errors in the robotic group and none favoring laparoscopy. Composite performance scores, although often based on non-validated assessment tools, consistently favored robotic training. Limited evidence suggested superior motion efficiency, reduced applied force, and improved short-term skill retention with robotic systems. In contrast, several studies reported comparable or superior laparoscopic performance in more complex or procedure-based tasks, and repeated practice reduced initial robotic advantages.

Conclusion:
Robot-assisted surgery offers distinct advantages in task performance and ergonomics, which may benefit novice surgeons. However, laparoscopic surgery may retain a time-efficiency advantage for certain tasks. Further accumulation of evidence from advanced training conducted in high-fidelity environments, such as cadaveric or porcine models, is strongly recommended.

P10-2 Pitfalls in Segment 7 Resection Focusing on the Course of the Ventral Branch of the Right Posteroinferior Portal Vein (P6a) and Portal Vein Branching Patterns

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【Introduction】Minimally invasive liver resection (MILR) has become widely adopted due to its advantages. However, the right intersectional plane (RIP) has considerable anatomical variation, requires caution to ensure safety MILR. Among these, right posteroinferior portal branch (P6a) typically runs dorsal to the right hepatic vein (RHV) (Dorsal-P6a), but in approximately 40% cases, runs ventral to the RHV (Ventral-P6a). Previous studies have reported that V-P6a is associated with increased difficulty in resections requiring transection of RIP, such as S7 segmentectomy. This study aimed to investigate pitfalls and corresponding strategies in S7 resection.

【Methods】55 patients who underwent liver resection with preoperative 3D reconstruction were analyzed. The following parameters were measured: the angle between RHV and IVC; the angle of the intersegmental plane between S5–8 and S6–7; the vertical distance from the liver surface to P7 root; and the horizontal distances from the hepatic hilum (right and left portal vein bifurcation) to the P7 root. Posterior sectional portal vein branching patterns were classified into six types (Annals of Anatomy 252:152204). Among these, HPV-RB trifurcation and HPV quadrifurcation, in which P7 arises directly from the main portal trunk, were categorized as Group A; approach from hilar to G7 root is feasible.

【Results】V-P6a was 23 cases (42%) and demonstrated a narrower S5–8/S6–7 intersegmental plane angle (141° vs. 162°, $p < 0.01$) and a wider RHV–IVC angle (54° vs 44°, $p < 0.01$). The vertical distance between liver surface and P7 root was longer (28 mm vs. 25 mm, $p = 0.035$), with a higher frequency of cases exceeding 35 mm (7/23 vs 3/32, $p = 0.045$). Group A was more frequently observed in V-P6a (43% vs 18%, $p = 0.04$). In Group A, the distance from the hepatic hilum to P7 root was significantly shorter (34 mm vs 44 mm, $p = 0.031$).

【Discussion】In V-P6a cases, the intersegmental plane between S5–8/S6–7 is narrow, and the RHV is not fully exposed along its length. Therefore, it is preferable to expose an anticipated distance from the RHV root. As the RHV–IVC angle is wider and deeper, caution is required to avoid misidentification of the RHV. G7 root tends to be located deeper from liver surface, making intrahepatic approach more challenging. On the other hands, Group A, where the G7 root lies closer from the hilum was observed more frequently in V-P6a. Thus, a hilar approach may be advantageous in some V-P6a cases.

【Conclusion】Classification based on P6a allows identification of pitfalls during S7 resection.

P10-3 Utility of liver surface-guided encirclement of hepatoduodenal ligament for the Pringle maneuver in minimally invasive repeat liver resection

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BACKGROUND
Repeated application of the Pringle maneuver is a key obstacle to safe minimally invasive repeat liver resection (MISRLR). However, limited technical guidance is available.
AIM To study the utility of newly developped pringle taping method guided by liver surface in MISRLR.
METHODS
We retrospectively reviewed 72 cases of MISRLR performed by a single surgeon at two centers from August 2015 to July 2024. Beginning in October 2019, a liver surface-guided encirclement of hepatoduodenal ligament (LSEH) was used for repeat Pringle taping. Perioperative outcomes including Pringle taping success, operative time, blood loss, conversion rate, morbidity, and mortality were assessed.
RESULTS
Laparoscopic and robotic approaches were used in 63 patients and 9 patients, respectively. The median operative time, blood loss, and hospital stay were 331.5 min, 70 mL, and 8 days, respectively. Open conversion occurred in two cases (2.8%) due to severe adhesions and left renal vein injury. Clavien-Dindo grade ≥ III complications occurred in 5.6% of cases with no mortality. Anti-adhesion barriers were used in 54 patients (75.0%). LSEH was attempted in 57 cases, improving Pringle taping success from 33.0% to 91.4% ($P < 0.001$). LSEH succeeded in all patients with prior open liver resection ($n = 11$). Among 6 patients in whom LSEH failed, 3 patients (50.0%) had undergone a third liver resection, and 1 patient had a history of distal gastrectomy with choledochoduodenostomy.
CONCLUSION
The newly developed LSEH technique for Pringle taping in MISRLR was feasible, enhancing safety and reproducibility even in patients with a history of open liver resection.

P10-4 Indocyanine green near-infrared fluorescence–guided laparoscopic hepatectomy for colorectal liver metastases

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Background: In laparoscopic hepatectomy for colorectal liver metastases (CRLM), the absence of palpation and practical limitations of laparoscopic intraoperative ultrasonography (IOUS) can result in tumor exposure at the transection plane. Indocyanine green (ICG) near-infrared (NIR) fluorescence imaging provides real-time visualization of a peritumoral fluorescent rim; however, its pathological meaning and contribution to margin assurance remain incompletely defined. We investigated the pathological significance of ICG NIR fluorescence and its usefulness in securing negative margins during laparoscopic hepatectomy for CRLM.

Methods: This single-center prospective observational study included 59 consecutive patients undergoing pure laparoscopic hepatectomy for CRLM with intraoperative NIR fluorescence imaging from February 2017 to June 2021 (94 tumors; repeat hepatectomy excluded). ICG (2.5 mg/body) was administered intravenously 1–2 days before surgery. After hepatic mobilization, NIR imaging was used to survey the liver surface and was repeatedly applied during parenchymal transection. When fluorescence was observed on the dissection surface, the transection plane was modified to a deeper layer. Margin status and minimum pathological margin distance were assessed in formalin-fixed specimens (R1 defined as 0 mm/exposed tumor). Selected tumors were evaluated on 4-mm paraffin-embedded sections by fluorescence microscopy to identify the cellular source of fluorescence and to measure the distance between continuous fluorescence and the tumor edge.

Results: Surface NIR fluorescence identified 56/94 tumors (59.6%). Detectability was depth dependent: all tumors within 4 mm of the liver surface were detectable, whereas tumors ≥6 mm deep were not detectable in vivo; detectable tumors were significantly closer to the surface than undetectable tumors (median 1.8 vs 8.8 mm, $P<0.001$). Pathology demonstrated R0 resection in 57/59 patients (96.6%) and 92/94 tumors (97.9%), with a median minimum margin distance of 3 mm (range, 0–20). The most common margin distances were 2 mm (n=17) and 1 mm (n=15). Two R1 resections (0-mm margin) occurred in posterosuperior segments (S7/S8) in small lesions (<10 mm) located 5 mm from the surface without visible surface fluorescence. Paraffin-section fluorescence assessment was successful in 20/94 tumors (21.3%) and revealed fluorescence confined to peritumoral normal hepatocytes with no fluorescence-positive tumor cells; the median distance of continuous fluorescence from the tumor edge was 1.074 mm. Fluorescence could be absent around vascular invasion areas.

Conclusions: ICG NIR fluorescence–guided laparoscopic hepatectomy achieved a high R0 rate and provided intuitive, real-time feedback for transection-plane adjustment, complementing IOUS for margin assurance in CRLM. A visible fluorescent rim supports an approximately 1-mm tumor-free buffer; however, deep/posterosuperior lesions and vascular invasion may yield false-negative signals, warranting cautious interpretation.

P10-5 Technical Refinement of Robot-Assisted Warshaw Spleen-Preserving Distal Pancreatectomy Through Systematic Preservation of Splenic Collateral Pathways

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Background and Aim

The Warshaw technique for spleen-preserving distal pancreatectomy (SPDP) is widely accepted; however, postoperative splenic infarction has been reported at a non-negligible rate in previous studies. We hypothesized that splenic ischemic complications are not an inherent limitation of the Warshaw technique itself, but rather result from insufficient preservation of splenic collateral circulation and perisplenic connective tissue. This study aimed to present a refined robot-assisted Warshaw SPDP (R-Warshaw) strategy that systematically prioritizes preservation of these structures and to evaluate its clinical outcomes.

Patients and Methods

Between 2020 and 2024, 16 patients underwent robot-assisted SPDP at our institution, including 6 Kimura procedures and 10 Warshaw procedures. In all cases, the surgical strategy strictly prioritized preservation of the left gastroepiploic vessels, short gastric vessels, and perisplenic connective tissue, regardless of the selected technique. These structures were neither divided nor skeletonized.Importantly, this preservation is technically demanding and cannot be achieved by simple avoidance of vascular division. Because these structures must be maintained within a narrow and deep operative field—particularly under robotic conditions with limited wide traction—we developed a systematic, stepwise approach to standardize this maneuver.

In R-Warshaw cases, proximal control of the splenic artery was first obtained from the superior border of the pancreas to reduce arterial inflow prior to hilar manipulation. To preserve tissue tension and facilitate precise dissection in the splenic hilum, hilar vascular division was deliberately prioritized before pancreatic transection. Visualization was optimized using high left-side port placement and strategic robotic retraction. Indocyanine green (ICG) fluorescence imaging was used to assess perfusion of the left gastroepiploic vessels and gastrosplenic ligament as a surrogate marker of preserved splenic blood flow.

Results

The median operative time, blood loss, and postoperative hospital stay were 389 minutes, 27 mL, and 14 days, respectively. Operative time tended to be longer in male patients with higher body mass index. Clinically relevant postoperative pancreatic fistula occurred in 3 patients (19%). Early postoperative contrast-enhanced CT demonstrated splenic vessel occlusion in one Kimura case; however, no partial or total splenic infarction was observed in any patient, including all Warshaw cases. No splenic-related complications were identified during follow-up.

Conclusions

When splenic collateral vessels and perisplenic connective tissue are systematically and uncompromisingly preserved through a standardized approach, the Warshaw technique can achieve reliable splenic preservation without ischemic complications. Our findings suggest that splenic infarction is not inevitable in the Warshaw method, but rather reflects deviations from a collateral-preserving surgical strategy. R-Warshaw, performed under this principle, represents a safe and versatile option even for malignant tumors of the pancreatic body.

P10-6 Preoperative Tumor Thrombus Occupation Rate as a Practical Indicator for Selecting Vascular Control in Hepatocellular Carcinoma with Inferior Vena Cava Tumor Thrombus

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Background

Hepatocellular carcinoma (HCC) with inferior vena cava tumor thrombus (IVCTT) is associated with poor prognosis and poses significant technical challenges during surgical resection. Although tumor thrombectomy under total hepatic vascular exclusion (THVE) is widely performed, partial inferior vena cava clamping (side clamp) may reduce circulatory disturbance in selected patients. However, objective criteria for choosing between these strategies remain unclear.

Case Presentation

A 47-year-old man with hepatitis B virus–associated HCC presented with a 12-cm tumor occupying the right hepatic lobe and a tumor thrombus extending from the right hepatic vein into the inferior vena cava below the diaphragm. Right hepatectomy with en bloc tumor thrombus removal was performed using side clamping of the inferior vena cava combined with veno-venous bypass. The postoperative course was uneventful, and adjuvant nucleoside analogue therapy was initiated. The patient remains recurrence-free 17 years after surgery.

Methods

To explore objective indicators for selecting vascular control methods, we reviewed previously reported Japanese cases of HCC with IVCTT below the diaphragm. Using preoperative computed tomography or ultrasonographic images, we calculated the tumor thrombus occupation rate of the inferior vena cava, defined as the ratio of the tumor thrombus diameter to the inferior vena cava diameter on the minor axis.

Results

In cases managed under THVE, the tumor thrombus occupation rate ranged from 46.2% to 95.2%. In contrast, cases treated with side clamping consistently demonstrated lower occupation rates, ranging from 30.0% to 47.4%. Our case showed an occupation rate of 39.0% and was successfully managed using side clamping without hemodynamic instability.

Conclusion

An inferior vena cava tumor thrombus occupation rate below 50% may serve as a simple and practical preoperative indicator for selecting side clamping rather than THVE in selected patients with IVCTT. This morphologic parameter can be readily assessed using routine preoperative imaging and may contribute to safer surgical planning with reduced circulatory compromise. Further accumulation of cases is warranted to validate its clinical utility.

P11-1 Outcome of Adjuvant therapy for Esophageal Cancer by Nivolumab in our institute

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Objective:

This study aimed to evaluate the oncologic outcomes and safety profile of adjuvant nivolumab in patients with thoracic esophageal cancer who underwent curative surgery after NAC but did not achieve pCR.

Patients and Methods:

We retrospectively reviewed 48 consecutive patients with thoracic esophageal cancer who underwent curative resection at our institution between December 2021 and December 2022. Patients were classified into a nivolumab-eligible group (Nivo group) and a non-adjuvant group (No-Adj group). Clinicopathologic characteristics, DFS, and treatment-related adverse events were compared. DFS was analyzed using the Kaplan–Meier method and compared with the log-rank test. Immune-related adverse events (irAEs) were graded according to CTCAE v5.0.

Results:

Histological subtypes included ESCC in 45 patients (94%), adenocarcinoma in 2 (4%), and adenosquamous carcinoma in 1 (2%). Twenty-two patients (46%) were assigned to the Nivo group and 26 (54%) to the No-Adj group. The median observation period was 27.8 months (range 4.7–38.0). Median DFS was not reached in either group, and no significant difference was observed (HR 1.04, 95% CI 0.43–2.50, P=0.94).

In the subgroup of pStage II disease (n=17), the median DFS was 21.5 months in the Nivo group and not reached in the No-Adj group, showing no significant difference. Among patients with pStage III disease (n=20), the median DFS was 20.6 months in the Nivo group and 3.7 months in the No-Adj group; however, this trend toward improved DFS did not reach statistical significance.

Immune-related AEs occurred in 76% of the Nivo group, all of which were Grade ≤2. The median number of nivolumab administration courses was 4.5 (range 1–20). There were no treatment discontinuations due to toxicity, although 4 patients required permanent additional medical management for irAEs.

Conclusions:

In patients with thoracic esophageal cancer treated with NAC who did not achieve pCR, adjuvant nivolumab did not demonstrate a clear DFS advantage in this single-center real-world cohort. Although most irAEs were mild and manageable, further accumulation of cases and multicenter analyses are needed to clarify the clinical benefit of adjuvant nivolumab in the NAC-based treatment paradigm in Japan.

P11-2 Characteristics and prognosis according to tumor location in esophageal squamous cell carcinoma

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Background: This study aimed to analyze location-specific characteristics and prognosis of esophageal squamous cell carcinoma (ESCC).

Methods: Medical records of patients with ESCC between December 2008 and December 2024 at Pusan National University Yangsan Hospital were retrospectively reviewed. A total of 497 patients with ESCC were included in the study and classified into three groups based on tumor location: upper esophagus (n=107), middle esophagus (n=224), and lower esophagus (n=166). The clinical characteristics at diagnosis and prognosis were compared among these groups.

Results: Patients with upper esophageal cancer were the oldest at the time of diagnosis (median age 70 years, p=0.041) and were more frequently diagnosed at an advanced stage (T4 stage: 12.1%, p=0.006). Patients with middle ESCC were diagnosed at the earliest stage (T1 stage: 48.7%, p<0.001). Patients with lower ESCC had the highest incidence of distant metastasis at diagnosis (22.3%, p=0.012). Overall survival was significantly lower in patients with upper ESCC (hazard ratio [HR], 1.94; 95% confidence interval [CI], 1.41–2.67; p<0.001) and lower ESCC (HR, 1.59; 95% CI, 1.18–2.13; p=0.002) compared to those with middle ESCC.

Conclusions: Endoscopists should be particularly vigilant to avoid missing upper ESCC, and careful consideration should be given to the potential for distant metastasis in lower ESCC.

P11-3 Usefulness of 18F-fluorodeoxyglucose positron emission tomography for T1 esophageal squamous cell carcinoma

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Background: The utility of ^{18}F-fluorodeoxyglucose (FDG) positron emission tomography/computed tomography (PET/CT) for T1 esophageal cancer is unclear. This study analyzed the usefulness of FDG-PET for T1 esophageal squamous cell carcinoma (ESCC).

Materials and methods: Medical records of patients with T1 ESCC between December 2008 and July 2024 at Pusan National University Yangsan Hospital were retrospectively reviewed. The preoperative FDG-PET/CT findings and final pathological results of patients with T1 ESCC confirmed by surgery or endoscopic resection were compared.

Results: Among the 133 patients with T1 ESCC, 84 (63.2%) had mucosal cancer, 49 (36.8%) had submucosal cancer, and 9 (6.8%) had lymph node metastasis. The maximal standardized uptake value (SUVmax) of the PET/CT images was positively correlated with the invasion depth (r=0.670; p<0.001) and tumor length (r=0.518; p<0.001). PET confirmed FDG uptake in eight cases of mucosal cancer and 35 cases of submucosal cancer (9.5% vs. 71.4%; p<0.001). The sensitivity and specificity of negative PET results of mucosal cancer were 84% and 81%, respectively. Of the eight mucosal cancers in which FDG uptake was observed during PET, five (62.5%) were whole or near circumferential lesions.

Conclusions: FDG uptake observed using PET/CT was positively correlated with the invasion depth and tumor length of T1 ESCC. If T1 ESCC exhibits FDG uptake on PET/CT, then surgery or chemoradiotherapy may be a better option than endoscopic resection.

P11-4 Preoperative Diagnosis of Gastric Glomus Tumor Enabling Minimally Invasive Wedge Resection: A Case Report

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Background:

Gastric glomus tumors are rare mesenchymal neoplasms accounting for approximately 1% of all benign gastric tumors. Their submucosal origin and hypervascular imaging characteristics often lead to diagnostic confusion with gastrointestinal stromal tumors (GISTs), neuroendocrine tumors (NETs), or other mesenchymal lesions.

Preoperative identification remains challenging, as endoscopic biopsy frequently yields insufficient samples and imaging findings lack specificity.

We report a rare case of a gastric glomus tumor that was accurately diagnosed preoperatively through repeated endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) with immunohistochemical analysis, allowing for an optimal and minimally invasive surgical approach.

Case Presentation:

A woman in her 50s was found to have a submucosal gastric lesion during routine screening esophagogastroduodenoscopy. The lesion was located in the gastric body and measured approximately 2cm in diameter. Contrast-enhanced computed tomography demonstrated a well-circumscribed, extraluminally protruding mass with strongenhancement, raising suspicion for a hypervascular submucosal tumor.

She was initially evaluated at another institution, where EUS-FNA suggested the possibility of a gastric carcinoid (NET); however, the diagnosis remained inconclusive. The patient was referred to our hospital for further evaluation and management.

EUS-FNA was repeated in our hospital.

Histological examination again suggested a submucosal neoplasm which included features of NET; however, immunohistochemical staining provided crucial diagnostic clarity. The tumor cells were negative for AE1/AE3, chromogranin A, and synaptophysin, which argued against a neuroendocrine origin.

Conversely, the tumor showed strong positivity for α-smooth muscle actin (α-SMA), supporting a smooth muscle–related neoplasm.

LCA and S-100 protein staining were negative, excluding lymphoid or neural origin.

The Ki-67 proliferation index was less than 1%, indicating a low-grade malignancy.

Based on this immunohistochemical profile, a preoperative diagnosis of gastric glomus tumor was made.

Because Neuroendocrine Neoplasm (NEN) often require gastrectomy with lymph node dissection, an accurate diagnosis was essential for selecting the optimal surgical strategy.

With the confirmed diagnosis of glomus tumor—a neoplasm with extremely low malignant potential—laparoscopic wedge resection was planned.

The surgery was completed safely without complications, and the postoperative course was uneventful.

Conclusion:

This case highlights the clinical value of repeated EUS-FNA combined with comprehensive immunohistochemistry in the preoperative diagnosis of gastric glomus tumors.

Accurate preoperative identification could facilitate minimally invasive and function-preserving surgery while avoiding unnecessary lymphadenectomy.

P11-5 Surgical Technique and Clinical Outcomes of Enucleation for Benign Esophageal Tumors at Our Department

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Introduction

In our department, thoracoscopic surgery is the first-line treatment for benign esophageal tumors requiring surgical intervention. Herein, we report the surgical technique and clinical outcomes of thoracoscopic tumor enucleation.

Methods

Seven patients with benign esophageal tumors who underwent thoracoscopic tumor enucleation between February 2010 and January 2025 were included.

Surgical Techniques

With the patient in the prone position, a right thoracic approach was performed, employing four ports in total. The pleura and muscle layer overlying the tumor were incised longitudinally, and the tumor was dissected from within the muscle layer. EndloopTMwas applied during tumor dissection, which facilitated traction of the tumor and provided a well operative field. After tumor removal, the muscular layer was closed with continuous suture using absorbable sutures, and the pleura was closed with non-absorbable sutures.

Results

There were 4 male and 3 female patients, with a median age of 37 years (range; 24–67 years). 6 tumors were leiomyomas and one was a schwannoma. The median maximum tumor diameter was 70 mm (28–98 mm). Median operative time was 174 (128–293) minutes, and median blood loss was 0 mL. Median postoperative period to oral intake was 5 (3–29) days, and median postoperative hospital stay was 11 (6–33) days. Postoperative complications included anastomotic leakage in one case. No postoperative stenosis or tumor recurrence was observed.

Conclusion

Thoracoscopic surgery for benign esophageal tumors in our institution demonstrated favorable outcomes and minimal invasiveness. It is considered as an effective treatment option.

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コヴィディエンジャパン株式会社
Tel：0120-998-971

medtronic.co.jp

販売名：Valleylab FT10ｴﾈﾙｷﾞｰﾌﾟﾗｯﾄﾌｫｰﾑ　医療機器承認番号：22800BZX00157000
販売名：ForceTriadｴﾈﾙｷﾞｰﾌﾟﾗｯﾄﾌｫｰﾑ　医療機器承認番号：21900BZX00853000
販売名：Sonicision 7 コードレスシステム　医療機器承認番号：30500BZX00058000

使用目的又は効果、警告・禁忌を含む使用上の注意等の情報につきましては製品の電子添文をご参照ください。

SI-A1359

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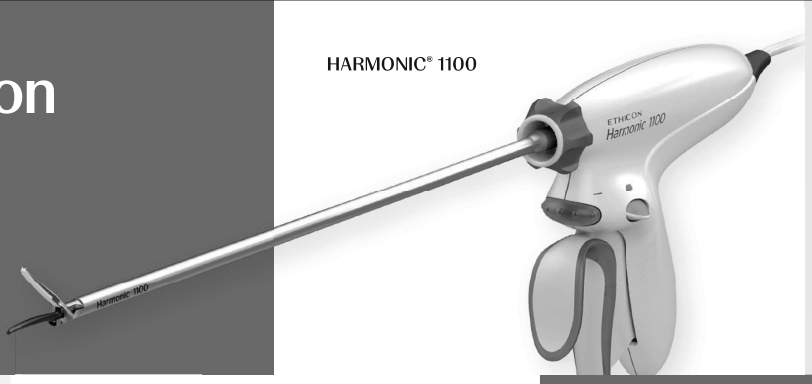
HARMONIC® 1100



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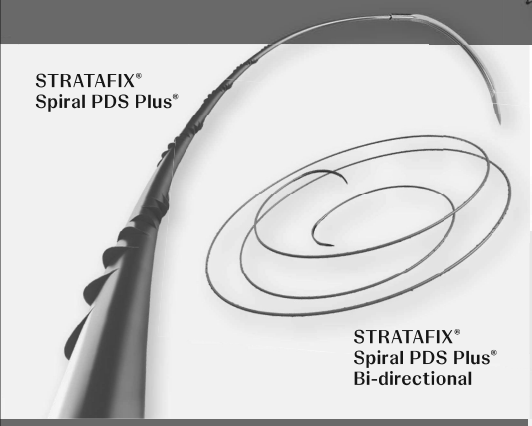
Powered Stapler

STRATAFIX®
Spiral PDS Plus®



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SURGICEL SNoW®
Absorbable Hemostat

SURGICEL®
ABSORBABLE HEMOSTAT

DERMABOND
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SURGIFLO®

HARMONIC
FOCUS®+

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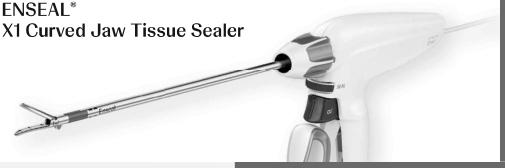
PDS PLUS®

ENSEAL®
X1 Curved Jaw Tissue Sealer



Powered
ECHELON FLEX® 3000

製造販売元：ジョンソン・エンド・ジョンソン株式会社　メディカル カンパニー
〒101-0065 東京都千代田区西神田 3-5-2　TEL.0120-160-834

JP_ETH_STAP_357792

販売名：エンドパス　ステイプラー　Powered ECHELON FLEX 3000　認証番号：304AABZX00060000
販売名：GSTカートリッジ　承認番号：22700BZX00155000
販売名：エシェロン　サーキュラー　パワードステイプラー　承認番号：30100BZX00156000
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販売名：ハーモニック　1100　シアーズ　承認番号：30300BZX00138000
販売名：エンシール X1 ティシューシーラー　承認番号：30200BZX00391000
販売名：ハーモニック　FOCUS　プラス　承認番号：22700BZX00411000

販売名：STRATAFIX Spiral PDS プラス　承認番号：22900BZX00123000
販売名：STRATAFIX Spiral PDS プラス Bidirectional　承認番号：30400BZX00016000
販売名：PDS　プラス　承認番号：22300BZX00333000
販売名：ダーマボンド プリネオ　届出番号：13B1X00204ME0010
販売名：サージフロー　承認番号：23100BZX00112000
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販売名：サージセル・アブソーバブル・ヘモスタットMD　医療機器承認番号：30400BZX00112000