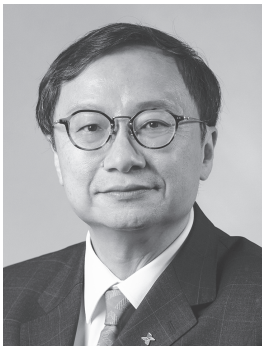
Abstract

●Special Lecture

The Art and Joy of academic surgeon



Jimmy Bok-Yan So
(Division & Senior Consultant, Division of General Surgery (Upper Gastrointestinal Surgery), Department of Surgery, National University Hospital)

As surgeons are directly involved in patient care, they find themselves in a unique position, where novel insights can be translated from research to clinical practice and where clinical practice informs research. In fact, surgeons have a long and robust legacy in driving scientific innovation. Until today, 9 surgeons have been awarded a Nobel prize, including Theodor Kocher for his work on thyroid gland pathophysiology, Sir Frederick Banting for the discovery of insulin, and Joseph Murray for the first successful kidney transplantation.
Numerous others have been honored for their seminal discoveries, which have paved the way in various fields of surgery and beyond, ultimately saving countless lives.
Such surgeons, who combine excellence in clinical practice and research, are commonly known as “surgeon scientists” or academic surgeons.
Apart from impact on the development in medicine, there are also numerous benefits to the individual surgeon too. Research output brings significant job satisfaction and allows career advancement for the academic surgeons compared to their peers. It helps to establish friendships within the community and provides ample opportunities to travel aboard for conferences.

In the lecture, apart from the benefits, tips to succeed in academic surgery will be shared. Ways to protect the young surgeon scientists will be discussed too.

〔CURRICULUM VITAE〕
Prof Jimmy So graduated from Faculty of Medicine at the Chinese University of Hong Kong in 1991. He received his surgical training in National University Hospital, Singapore. He was trained in Upper Gastrointestinal Surgery, Surgical Oncology, Bariatric Surgery, Therapeutic Endoscopy and Minimally Invasive Surgery. He received fellowship training at Massachusetts General Hospital, Harvard Medical School, USA. He was also appointed as visiting consultant surgeon in Esophageal and Gastric Surgery at the Royal Infirmary in Edinburgh, UK. He established a multidisciplinary program for Esophagogastric cancers in NUH in 2005. He also received fellowship training in gastric and esophageal cancer surgery in Japan, Korea and Hong Kong. He established the Centre for Obesity Management and Surgery (COMS). He is pioneer of peroral endoscopic myotomy (POEM), minimally invasive surgery for gastric cancer, intraperitoneal chemotherapy and pressurized intraperitoneal aerosol chemotherapy (PIPAC) in Singapore.

He has published more than 300 peer reviewed scientific papers (H Index of 62, Total citations > 14,858 according to Google Scholar in August 2025) and received over S$15 million research grants for his research. He published his research in medical journals such as Lancet, Nature, Cell, Nature Genetics, Gastroenterology, Gut, Cancer Discovery, Cancer Cell, Journal of Clinical Oncology, Annals of Surgery, BJS and JAMA Surgery. He received the Peritoneal Prize by International Society for the Study of Peritoneum and Pleura (ISSPP) in 2020 which recognized the top researcher in the world in the field of peritoneal carcinomatosis. He delivered the Yaya Cohen Memorial Lecture by College of Surgeons, Singapore in 2018. He has delivered over 150 invited lectures internationally. He was invited regularly to speak at International Gastric Cancer Congress, Annual Scientific Meetings of Japanese Gastric Cancer Association and Korean International Gastric Cancer Week. He has also presented his research at American Gastroenterological Association (AGA), American Society of Clinical Oncology (ASCO), American Society of Gastrointestinal Endoscopy (ASGE), Society of American Gastrointestinal Endoscopic Surgeons (SAGES), International Society for Diseases of Esophagus (ISDE) and World Congress of Endoscopic Surgery. He is founding president of the Asia-Pacific Gastro-esophageal Cancer Congress in 2006. Prof So is the Editor for Gastric Cancer, an official journal of International Gastric Cancer Association (IGCA) and he is also member of editorial board of journals including ESMO GI Oncology, BJS Open, Journal of Gastric Cancer, Cancers, Translational Medicine and Annals of Gastroenterological Surgery.

●Special Lecture

Surgical education in the era of AI and robotics

Wayne Shih-Wei Huang
(Dean, IRCAD Taiwan / AITS; Show Chwan Memorial Hospital, Changhua, Taiwan)

Wayne Shih-Wei Huang, MD, MPH, PhD, FACS, is Dean of IRCAD Taiwan / AITS and a surgeon at Show Chwan Memorial Hospital in Changhua, Taiwan. He specializes in minimally invasive and robotic surgery, with particular expertise in digestive surgery and hernia surgery. As a leader of IRCAD Taiwan / AITS, one of Asia's major centers for minimally invasive surgery training, Dr. Huang has played a key role in advancing structured surgical education, hands-on training, and international collaboration for surgeons across Asia and beyond.

Dr. Huang received his MD and MPH degrees from Tulane University in the United States and his PhD from Tokyo Women's Medical University in Japan. His work bridges clinical surgery, surgical education, robotics, and medical innovation, with a strong focus on how emerging technologies can enhance training, operative performance, and the development of next-generation surgical systems. In recognition of his contributions to international collaboration and the advancement of endoscopic surgery, he was inducted as an International Honorary Member of the Japan Society for Endoscopic Surgery (JSES) in 2023.

In addition to his clinical and educational activities, Dr. Huang is actively involved in medical device innovation, physician–startup collaboration, and medtech entrepreneurship. Through his work as a surgeon, educator, and innovator, he continues to contribute to the future of surgical education in the era of AI, robotics, and digital transformation.

Reaching for the International Stage: Lessons for Young Surgeons

Hon Chi Yip
(Division of Upper GI and Metabolic Surgery, Department of Surgery, Faculty of Medicine, The Chinese University of Hong Kong)

Hon-chi Yip is currently clinical assistant professor at the Division of Upper Gastrointestinal and Metabolic Surgery, Department of Surgery, Faculty of Medicine, the Chinese University of Hong Kong. He is also serving as deputy director of the endoscopy center and honorary associate consultant at the Prince of Wales Hospital.

Dr. Yip graduated from the Chinese University of Hong Kong in 2008 with honors. He received the RC Li Gold Medal in Surgery. He joined the Department of Surgery at Prince of Wales Hospital after graduation and obtained the fellowship in General Surgery in 2015.

Focusing on Upper Gastrointestinal Tract Cancer management, Dr. Yip underwent overseas training in Osaka and Tokyo, Japan in 2017. His current research focuses on endoscopic diagnosis and treatment of early gastrointestinal cancer, as well as minimally invasive and robotic techniques in surgical treatment of gastric and esophageal neoplasia. Working with Cornerstone Robotics, a new robotic surgical system developed in Hong Kong, Dr. Yip pioneered the use of the system in upper gastrointestinal surgery as well as application of artificial intelligence in robotic surgery.

Dr. Yip is engaged in regional education and training. He serves in the steering committee of the Asian Novel Bio-imaging and Intervention Group (ANBIIG), an Asian wide organization focusing on endoscopic diagnosis and treatment of GI luminal diseases. He is a member of the Education Committee in the Asia-Pacific Society of Digestive Endoscopy (APSDE). He is currently board member of the Asia-Pacific Endo-Laparoscopic Surgery Group (APELS), Guidelines Committee member of International Society for Diseases of the Esophagus (ISDE), member of the Academy of Endoscopy (AoE), council member of Hong Kong Society of Digestive Endoscopy.

A-1-1 Development of a Copper Metabolism Assay Using Redifferentiated Mature Hepatocytes from Rat CLiPs

○Diyar Akhmet, Luyang Li, Daisuke Miyamoto, Akihiko Soyama, Hajime Matsushima, Takanobu Hara, Masato Fujiyoshi, Takashi Hamada, Hajime Imamura, Baglan Askeyev, Fumika Kamehama, Kayo Hasegawa, Tomohiko Adachi, Kengo Kanetaka, Susumu Eguchi
(Nagasaki University Graduate School of Biomedical Sciences, Department of Surgery, Division of Digestive Surgery and Transplantology)

[Objective] Copper metabolism is a key liver function, and its evaluation requires functional hepatocyte-based systems. We have previously established chemically induced liver progenitor (CLiP) cells derived from mature hepatocytes (MHs) using small-molecule compounds. This study aimed to assess copper uptake and excretion during Redifferentiation into mature hepatocytes (Red-MHs) and to evaluate their functional maturation using copper handling as a readout. [Methods] Rat mature hepatocytes (rMHs) were isolated, and rat CLiP (rCLiP) were generated using small-molecule compounds. rCLiP were seeded onto collagen-coated dishes, and redifferentiation into Red-MHs was induced according to a previously described protocol. Copper handling was assessed by quantifying intracellular copper concentrations after exposure to copper-containing medium, followed by incubation in copper-free medium. [Results and Discussion] Following induced redifferentiation, Red-MHs exhibited decreased EpCAM and increased ALB expression, confirming hepatocellular maturation. They demonstrated urea production and ammonia metabolism comparable to MHs. Under optimized conditions (50 uM copper), selected to preserve cell viability with minimal cytotoxicity relative to higher concentrations (100-125 uM), intracellular copper accumulation was highest in Red-MHs (517 umol/mg protein), compared to CLiP (286 umol/mg protein) and MHs (462 umol/mg protein). Following incubation in copper-free medium, intracellular copper levels decreased in all groups (126 umol/mg protein in Red-MHs vs 48 umol/mg protein in MHs and 70 umol/mg protein in CLiP), indicating active copper excretion. These findings show that copper handling increases with hepatocellular maturation and that Red-MHs exhibit hepatocyte-like properties, supporting this copper handling-based system as an in vitro model for assessing functional maturation.

A-1-2 A new concept of liver segment 6/7 segmentectomy based on 3D-reconstruction of portal and hepatic veins

○Takashi Imanaka[1)], Zenichi Morise[1)], Hiroyuki Kato[2)], Kenichi Nakamura[1)], Tetsuya Koide[1)], Kazuhiro Matsuo[1)], Tomoyoshi Endo[1)], Koji Morohara[1)], Hidetoshi Katsuno[1)], Akihiko Horiguchi[2)]
([1)]Department of Surgery, Fujita Health University School of Medicine, Okazaki Medical Center, [2)]Department of Gastroenterological Surgery, Fujita Health University School of Medicine, Bantane Hospital)

Background: Couinaud segmentation assumes a dichotomous right posterior portal vein (RPPV) division into P6 and P7. However, anatomical variability may limit intraoperative identification of segmental borders and guidance for subsegmental resection.Methods: We retrospectively analyzed contrast-enhanced five-phase CT-based 3D reconstructions of portal and hepatic veins from 100 cases. Third-order RPPV branching patterns were classified into three types: bifurcation, loop, and others. We measured 3D distances from the posterior portal origin to the first major branch point and performed volumetry of territories supplied by individual third-order branches. Hepatic vein (HV) anatomy was categorized as HV-type1 (fissure-plane forming intersegmental vein), HV-type2 (landmark vein without plane formation), or HV-type3 (neither), and compared between portal types.Results: Bifurcation type was observed in 45 cases (45.0%) and loop type in 53 (53.0%); two cases (2.0%) showed other patterns. The distance to the first branch point was shorter in bifurcation type than in loop type (8.89+/-7.87 vs 17.3+/-8.36 mm;$p<0.001$). In bifurcation type, the first branch territory accounted for 43.8%+/-12.6% of the posterior section, whereas the first-branch cone-unit territory in loop type accounted for 14.9%+/-8.64% ($p<0.001$). HV-type1/2/3 ratios differed by portal type (Bifurcation:29/16/0; Loop:25/14/14;$p<0.001$), and 26.4% of loop-type cases lacked any hepatic venous landmark.Conclusion: A clear Couinaud S6/S7 dichotomy applies to fewer than half of patients. Couinaud-based segmentectomy with vein-guided transection may be suitable for bifurcation type, whereas cone-unit-based anatomical resection may be appropriate for loop-type anatomy.

A-1-3 Impact of frailty on hepatocellular carcinoma resection in the elderly and the significance of preoperative intervention

○Chiharu Nakasu, Shinichirou Yamada, Hiroki Teraoku, Yu Saitou, Tetsuya Ikemoto, Akihiko Soyama
(Tokushima University, Department of Digestive Surgery)

Background
As we enter an ageing society, frailty has gained increasing attention even in surgery. We report the impact of frailty and effect of preoperative rehabilitation for hepatocellular carcinoma (HCC)patients who underwent hepatectomy.
Methods
164 patients over 70 years who underwent hepatectomy between 2008 and 2024 were enrolled in this study. Frailty was diagnosed as CFS(clinical frailty scale)>4,
1)Independent prognostic factors for cancer specific survival (CSS) were identified. Patients were divided into 2 groups, frailty (n=41) and non-frailty (n=123).
Clinicopathological factors were compared between 2 groups.
2)Frail patients were divided into 2 groups, with (n=14) and without (n=27) preoperative rehabilitation, and clinicopathological factors were compared between 2 groups.
Results
1) In univariate analysis for CSS, multiple tumors, vp+, ICG>10, cerebrovascular disease and frailty were prognostic factors. In multivariate analysis, multiple tumors, vp+ and frailty were independent prognostic factors. Frail patients were older, and had lower Hb and Alb levels ($p<0.05$). Furthermore, postoperative delirium and complication rates were higher compared. Postoperative hospital stay was significantly longer.
2)There was no significant difference between with and without rehabilitation. However, there was tendency of shorter postoperative stay in rehabilitation group. In rehabilitation group, 11 out of 14 patients showed improvement of neutrophil-lymphocyte ratio (NLR).
Conclusion
Frailty is an independent prognostic factor for HCC elderly patients who underwent hepatectomy. In frail patients, preoperative rehabilitation has a possibility of improvement in short-term outcome.

A-1-4 Conversion Surgery After Gemcitabine, Cisplatin, and Durvalumab for Initially Unresectable Gallbladder Cancer

○Kosuke Isomura[1)], Keisuke Ida[1)], Saori Umezawa[1)], Atsuhito Tsuchihashi[1)], Shinjiro Kobayashi[1)], Satoshi Koizumi[1)], Tomoko Norose[2)], Nobuyuki Ohike[2)], Shinya Mikami[1)]
([1)]Department of Gastrointestinal and General Surgery, St. Marianna University Hospital, [2)]Department of Diagnostic Pathology, St. Marianna University Hospital)

A woman in her 70s was referred to our hospital after a gallbladder tumor was detected during conservative treatment for acute cholecystitis. Computed tomography revealed marked gallbladder wall thickening and a 75-mm lobulated mass extending into segment 4 of the liver, with enlarged hepatoduodenal ligament lymph nodes and suspected liver metastases in segments 6 and 8. Positron emission tomography demonstrated intense uptake in the gallbladder lesion and additional intrahepatic accumulations, leading to the diagnosis of unresectable gallbladder cancer, cT3N1M1, stage IV. Systemic chemotherapy with gemcitabine, cisplatin, and durvalumab was initiated. After treatment, the primary tumor markedly regressed, and the liver metastases and nodal disease disappeared radiologically. The disease was reassessed as ycT2N0M0, and conversion surgery was performed.
The patient underwent gallbladder bed resection with sampling of hepatoduodenal ligament lymph nodes. Histopathological examination showed a 30 x 25 mm papillary-infiltrating adenocarcinoma localized to the gallbladder fundus. The final pathological stage was ypT1bN0, with negative cystic duct and dissection margins, indicating R0 resection. Immunohistochemistry demonstrated PD-L1 positivity, CD8-positive T-cell infiltration, and tertiary lymphoid structure formation, suggesting enhanced antitumor immunity associated with immune checkpoint blockade.
Conversion surgery for initially unresectable gallbladder cancer remains uncommon. This case suggests that gemcitabine, cisplatin, and durvalumab may achieve substantial tumor regression and enable curative resection in selected patients.

A-1-5 Delayed gastric emptying after pancreaticoduodenectomy with combined resection of the portal or superior mesenteric vein

○Satoshi Tomeoku[1)], Koki Maeda[1)], Yuki Segi[2)], Haruna Komatsubara[2)], Takahiro Ito[2)], Aoi Hayasaki[2)], Kazuyuki Gyoten[2)], Takehiro Fujii[2)], Yuusuke Iizawa[2)], Yasuhiro Murata[2)], Akihiro Tanemura[2)], Naohisa Kuriyama[2)], Masashi Kishiwada[2)], Shugo Mizuno[2)]
([1)]Department of Surgery, Owase General Hospital, [2)]Department of Hepatobiliary Pancreatic and Transplant Surgery, Mie University Graduate School of Medicine)

Background: Delayed gastric emptying(DGE) is a troublesome complication after pancreaticoduodenectomy(PD). Although portal vein(PV) / superior mesenteric vein(SMV) resection has become a standard procedure for pancreatic cancer, the impact of splenic vein(SV) resection and following gastric venous congestion on the incidence of DGE remains unclear. This study aimed to elucidate the influence of SV resections on DGE in patients who underwent PD with combined resection of PV/SMV.
Methods: Of 147 patients who underwent pure open subtotal stomach preserving pancreaticoduodenectomy with PV/SMV resection, patients were divided into two groups: SV resection(n = 101)and SV preservation(n = 46). The incidence of DGE between the groups was compared, and the influence of other vein resections related to gastric venous flow was evaluated. Uni- and multivariate analyses were performed to detect the risk factors of DGE.
Results: There were no significant differences in the incidence of grade B/C DGE between the SV resection and SV preservation groups(19.8 vs 19.6%, p= 0.973), and between the resection and preservation group of the veins related to gastric venous flow. Multivariate analysis revealed that intra-abdominalabscess(odds ratio: 3.355; 95% Cl: 1.324-8.500; P= 0.011) was the only independent risk factor.
Conclusion: SV resection did not affect the occurrence of DGE after PD with PV/SMV resection. There may be no need to insist on preserving the veins associated with gastric venous flow out of concern for DGE.

A-1-6 Development of a novel risk score incorporating postoperative day 1 glucose for new-onset diabetes after distal pancreatectomy

○Daisuke Kaneshiro, Sasaki Kazuki, Akita Hirofumi, Mukai Yosuke, Hasegawa Shinichiro, Yamada Daisaku, Tomimaru Yoshito, Noda Takehiro, Takahashi Hidenori, Doki Yuichiro, Eguchi Hidetoshi
(Department of Gastroenterological Surgery, The University of Osaka Graduate School of Medicine)

Background:
New-onset diabetes mellitus (NODM) is a recognized complication after pancreatectomy and is classified as type 3c diabetes mellitus. Previously reported risk factors include elevated preoperative HbA1c, higher BMI, and low remnant pancreatic volume. However, the predictive value of postoperative blood glucose remains unclear.
Methods:
We retrospectively reviewed 301 patients who underwent distal pancreatectomy between April 2010 and March 2025. Patients with concomitant malignancies other than pancreatic cancer, pre-existing diabetes, or missing data were excluded, leaving 178 patients for analysis. Postoperative blood glucose was evaluated using morning levels on postoperative day 1 under standardized management with fasting and glucose-containing intravenous infusion. NODM was defined as diabetes newly diagnosed within 1 year after surgery.
Results:
The cohort had a mean age of 61 ± 17 years, 47% were male, and mean BMI was 22.1 ± 3.7 kg/m2. Pancreatic ductal adenocarcinoma was present in 35%. Mean HbA1c was 5.7 ± 0.5%, and POD1 glucose was 149 ± 29 mg/dL.
NODM developed in 30 patients (16.9%). Multivariable analysis identified BMI, HbA1c, and POD1 glucose as independent predictors. A continuous risk score (HbA1c + BMI/10 + POD1 glucose/60) showed good discrimination (AUROC 0.890; 95% CI 0.823-0.940) with minimal optimism after bootstrap validation.
Incidence increased stepwise: 0.0% (0/76) for scores below 10.1, 17.5% (14/80) for scores from 10.1 to less than 11.5, and 72.7% (16/22) for scores 11.5 or higher.
Conclusion:
A simplified continuous score combining BMI, HbA1c, and POD1 blood glucose enables early prediction of NODM after distal pancreatectomy and supports risk-adapted postoperative management.

A-2-1 Pathological Complete Response after Liver Resection Following Lenvatinib-TACE for Advanced Hepatocellular Carcinoma with Inferior Vena Cava Tumor Thrombus

○Kosuke Nakamura, Ryota Masui, Hiroki Okamura, Yohei Sasaki, Keisuke Inoue, Ayana Kishimoto, Kazunari Ishitobi, Shunsuke Kaji, Takahito Taniura, Hikota Hayashi, Takeshi Matsubara, Takayuki Tanaka, Tetsu Yamamoto, Masaaki Hidaka
(Department of Digestive and General Surgery, Shimane University Faculty of Medicine)

Introduction: Systemic chemotherapy with atezolizumab plus bevacizumab is currently the standard first-line treatment for advanced hepatocellular carcinoma (HCC). However, immune checkpoint inhibitors (ICI) are not feasible in some patients with autoimmune diseases. Lenvatinib (LEN) combined with transarterial chemoembolization (TACE) has recently emerged as a promising strategy for tumor down-staging. We report a rare case of pathological complete response after a liver resection following LEN-TACE for advanced HCC with an inferior vena cava (IVC) tumor thrombus.
Case Presentation: A 73-year-old woman with autoimmune hepatitis treated with prednisolone (5 mg/day) was found to have a liver tumor on ultrasonography. Contrast-enhanced CT revealed a 10-cm hypervascular tumor in the medial segment with a tumor thrombus extending from the middle hepatic vein to the IVC just below the right atrium. No distant metastases were observed. Liver function was Child-Pugh A, and performance status was 0. Because ICI was not feasible, LEN-TACE therapy was initiated.
After 4 months, CT demonstrated a marked reduction in tumor enhancement along with a significant decrease in tumor markers. An extended left hepatectomy with caudate lobe and the tumor thrombectomy was successfully performed using a temporary IVC-superior vena cava shunt. Pathological examination revealed no viable tumor cells, indicating a pathological complete response. The patient remains recurrence-free 3 months after surgery.
Conclusion: LEN-TACE may enable curative liver resection even in advanced HCC with IVC tumor thrombus when ICI is not feasible.

A-2-2 A Case of Postoperative Benign Biliary Stricture Successfully Treated with Choledochoduodenostomy

○Takuya Yamada, Teraoka Shintaro, Asai Koji, Shibahara Yu, Watanabe Ryutaro, Saida Yoshihisa, Watanabe Manabu
(Toho University Medical Center Ohashi Hospital surgery)

Introduction:
We report a case of postoperative benign biliary stricture successfully treated with choledochoduodenostomy.
Case Presentation:
A 51-year-old man presented with an abdominal mass and was referred to our hospital for surgical treatment of a retroperitoneal tumor associated with right hydronephrosis. Imaging studies revealed a 110-mm retroperitoneal tumor adjacent to the third portion of the duodenum and the transverse colon. Tumor resection, partial duodenectomy, and right hemicolectomy were performed. Reconstruction was achieved with a side-to-side duodenojejunostomy on the side opposite the Vater papilla. Postoperatively, the patient developed fever and jaundice, and laboratory tests showed elevated biliary enzymes and amylase levels. Computed tomography demonstrated biliary and main pancreatic duct dilatation with findings of pancreatitis due to obstruction at the papilla. Percutaneous transhepatic gallbladder drainage (PTGBD) was performed on postoperative day 9. Cholangiography through the PTGBD tube revealed complete obstruction at the papilla, and guidewire passage was impossible. A staple line was identified at the obstructed site, suggesting papillary obstruction caused by stapling during duodenal transection. Endoscopic intervention also failed because the papilla could not be identified. As conservative management was considered ineffective, choledochoduodenostomy was performed on postoperative day 35. Jaundice improved promptly after surgery, and the patient was discharged on postoperative day 51. No recurrence of cholangitis or pancreatitis has been observed during 3 years of follow-up.
Conclusion:
Choledochoduodenostomy was an effective treatment for postoperative benign biliary obstruction in this patient.

A-2-3 Fourteen-year survival in a patient with VIPoma: a case highlighting multimodal management

○Ailin Dai[1)], Terence Huey[2)], Vishal G. Shelat[2)]
([1)]Lee Kong Chian School of Medicine, Nanyang Technological University, [2)]Tan Tock Seng Hospital)

VIPoma is an uncommon neuroendocrine tumour typically arising in the distal pancreas. The 5-year survival rate of patients with metastatic VIPoma is 60%.

We describe a VIPoma patient who survived for 14 years post-diagnosis.
Index presentation (2011) was managed with laparoscopic distal pancreatectomy and splenectomy with wedge resection of Segment IVA of the liver. A year later, he had laparoscopic left lateral sectionectomy for metastases. After a relapse (2016) with hepatic, pancreatic and regional lymph node involvement, he underwent 4 rounds of transarterial chemoembolization, ablation and radioembolisation. In 2019, disease progression with liver metastases and lymphadenopathy prompted Y-90 radioembolization of hepatic metastases, PRRT, and subtotal radiofrequency ablation of the pancreatic recurrence. In view of severe fluid electrolyte imbalance, a decision was made for resection of abdominal nodal disease and completion pancreatectomy in 2023. During surgery, a paraaortic node was resected but he was unstable and hence abbreviated. VIP levels dropped postoperatively and his quality of life improved with reduced diarrhoea frequency.

Two years later, persistent electrolyte derangements prompted a second exploratory laparotomy. Four surgical procedures were performed during this episode and he succumbed during this stay.

This case illustrates a multimodality approach to managing VIPoma that led to this patient outliving his diagnosis. A balance of risk and reward needs to be considered, alongside the patient's wishes in end-of-life care.

A-2-4 Mucinous Cystic Neoplasm in a Male Patient: A Rare Case With Diagnostic Implications

○Yuta Shimada, Imafuji Hiroyuki, Hirano Naoki, Yamada Takumi, Miyaike Tetsuro, Kato Ryutaro, Fujii Yoshiaki, Ueno Shuhei, Aoyama Yoshinaga, Hirokawa Takahisa, Miyai Hirotaka, Kimura Masahiro, Tanaka Moritsugu
(Kariya Toyota General Hospital)

Background:Mucinous cystic neoplasm (MCN) of the pancreas is a premalignant cystic tumor characterized by ovarian-type stroma and occurs predominantly in women. Its occurrence in male patients is rare. Case:A 62-year-old man was found to have a cystic lesion in the pancreatic tail. Imaging studies demonstrated a multilocular cyst with septations, and communication with the main pancreatic duct could not be clearly identified. The lesion was initially suspected to be branch-duct intraductal papillary mucinous neoplasm (IPMN) and was followed conservatively. After interval growth was observed, although malignancy was not strongly suspected, additional differential diagnoses including a retention cyst, MCN in a male patient, and an epidermoid cyst were considered. Laparoscopic distal pancreatectomy was performed as a diagnostic and therapeutic approach. Histopathological examination revealed mucinous cystadenoma with ovarian-type stroma. Immunohistochemical staining showed positivity for estrogen receptor, progesterone receptor, and CD10. No malignant features were identified. Discussion:MCN is typically observed in women, and its occurrence in men is uncommon. Previous studies have suggested that MCN in male patients may have higher malignant potential than in females, highlighting the importance of appropriate management. In addition, preoperative differentiation between MCN and IPMN can be challenging, particularly when communication with the main pancreatic duct is unclear, as in the present case. Therefore, careful evaluation and timely surgical intervention should be considered when interval growth is observed. Conclusion:MCN should be considered in the differential diagnosis of pancreatic cystic lesions even in male patients, and appropriate surgical management may be warranted.

A-2-5 Knacks of the J1A marked left to right approach (JLRA) in robot-assisted pancreaticoduodenectomy in PDAC

○Kazunori Tokuda, Jun Hanaoka, Yosuke Iwakawa, Naho Ishimura, Takeshi Utsunomiya, Jota Watanabe, Otani Hiromi, Atsushi Horiuchi
(Department of Gastrointestinal surgery, Ehime prefectural central hospital)

[Purpose]
Our hospital actively performs robot-assisted PD (RPD) even for invasive PDAC. Here, we present knacks for the J1A marked left-to-right approach (JLRA), our first choice.
[Method]
Performing sufficient Cocker maneuvers enhances pancreatic head mobilization. The origin of the jejunum is dissected, the SMA is identified, and the No. 14 op is dissected from its root to J2A. Dissection is performed from 1 o'clock to 5 o'clock to identify the roots of J1A and J2A. After transecting the jejunum 20 cm from the origin of the jejunum, the dissection is extended proximally along J2A. At this point, all of Area C is located on the resected specimen side. A clip is placed at the root of J1A to mark the right-sided dissection. The pancreatic neck is transected. An endoloop is placed around the descending duodenum and pulled outward from the right flank. Once PV dissection is sufficiently complete, the endoloop can be further pulled, improving visibility to the right side of the SMA. The J1A marking clip attached to the small intestinal mesentery allows for reliable visualization of the IPDA/J1A common duct. While increasing right-sided traction, complete dissection is performed from the dorsal side of the PV to the dorsal side of the SMA.
[Results]
44 RPD cases were performed using the above method. The operative time for the most recent 10 cases was 7 h 17 min, with a blood loss of 330 ml.
[Conclusion] JLRA enables reliable SMA dissection.

A-3-1 Prognostic Significance of Four Serum Tumor Markers in Patients with Esophageal Squamous Cell Carcinoma

○Masanari Yamada, Shiraishi Tadashi, Toyozumi Takeshi, Matsumoto Yasunori, Okada Koichiro, Sekino Nobuhumi, Kinoshita Kazuya, Makiyama Tenshi, Nishioka Yuri, Morimoto Akane, Maruyama Michihiro
(Department of Frontier Surgery, Chiba University Graduate School of Medicine)

Background: Tumor markers are substances produced by tumor cells or induced by the presence of cancer and are widely used for diagnosis, monitoring treatment response, and detecting recurrence. In esophageal squamous cell carcinoma (ESCC), several serum tumor markers such as carcinoembryonic antigen (CEA), cytokeratin 19 fragment (CYFRA21-1), squamous cell carcinoma antigen (SCC), and anti-p53 antibody have been reported individually. However, few studies have evaluated these four markers simultaneously in the same patient cohort. This study aimed to evaluate whether simultaneous assessment of four serum tumor markers (CEA, CYFRA21-1, SCC antigen, and anti-p53 antibody) improves prognostic prediction in patients with ESCC.

Methods: A total of 138 patients diagnosed with ESCC at our institution between January 2018 and January 2019 were retrospectively analyzed. Pre-treatment serum levels of CEA, CYFRA21-1, SCC antigen, and anti-p53 antibody were measured. Sensitivity of each marker was calculated. Patients were classified into 16 groups according to the combinations of positive and negative tumor markers, and associations with prognosis were evaluated. Univariate and multivariate Cox regression analyses were performed to determine prognostic factors.

Results: Among the four markers, SCC antigen showed the highest sensitivity (48.2%). Survival analysis demonstrated that patients positive for SCC antigen had significantly worse prognosis than those who were negative. Combined positivity of multiple markers was associated with poorer outcomes compared with single-marker positivity. In Cox regression analysis, both CEA and SCC antigen were identified as independent prognostic factors.
Conclusions: Simultaneous evaluation of multiple serum tumor markers may improve prognostic assessment in patients with ESCC.

A-3-2 Association of NR0B1 with Malignant Phenotypes in Esophageal Squamous Cell Carcinoma Through Modulation of p53-Independent Cell-Cycle Regulation

○Akimitsu Iizuka[1)], Mitsuro Kanda[1)], Yusuke Sato[2)], Dai Shimizu[1)], Shinichi Umeda[1)], Haruyoshi Tanaka[1)], Masamichi Hayashi[1)], Chie Tanaka[1)]
([1)]Nagoya University Graduate School of Medicine, Division of Gastroenterological Surgery, [2)]Department of Thoracic Surgery, Akita University Graduate School of Medicine)

Background: Transcriptome analysis of primary tumor tissues from esophageal squamous cell carcinoma (ESCC) patients with early postoperative distant metastasis identified nuclear receptor subfamily 0, group B, member 1 (NR0B1) as a novel gene associated with the malignant phenotypes of ESCC. This study aimed to elucidate the oncological functions of NR0B1 in ESCC and assess the significance of its tissue expression.
Methods: We investigated the effects of NR0B1 knockdown on the proliferation, migration, and adhesion capacities, in vivo tumor growth, and intracellular signaling pathways of ESCC cell lines. The correlation between tissue NR0B1 expression at both the mRNA and protein levels and postoperative prognosis was analyzed using two independent cohorts.
Results: Silencing NR0B1 significantly inhibited the proliferation, migration, and adhesion capacities of ESCC cell lines and decreased tumor growth in mouse cell line derived xenograft models. Knockdown of NR0B1 results in the upregulation of cell cycle regulators p21 and p27, alongside the downregulation of TK1, cyclin E1, CDK2 and CDT1, in a manner independent of p53. Although elevated tissue NR0B1 expression did not show a significant association with TNM stage, it was identified as an independent prognostic factor at both the mRNA and protein levels across two distinct patient cohorts.
Conclusions: NR0B1 plays a critical role in the malignant phenotype of ESCC by modulating cell cycle regulators. Tissue NR0B1 expression may serve as a valuable biomarker for assessing prognostic risk in ESCC patients.

A-3-3 Clinical outcomes of photodynamic therapy for residual or recurrent esophageal cancer after chemoradiotherapy: A single-institution experience

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Background: Photodynamic therapy (PDT) is a minimally invasive treatment that preserves the esophagus and has been increasingly applied to cT1 local residual and recurrent lesions without distant metastasis after chemoradiotherapy (CRT) or radiotherapy (RT). Talaporfin sodium-mediated PDT was approved in 2015 and has been increasingly adopted in clinical practice in Japan. We introduced PDT in 2018 and evaluated our clinical outcomes.

Methods: We retrospectively analyzed 19 patients with local residual or recurrent esophageal cancer after CRT or RT who underwent PDT between February 2018 and February 2025. Eligible lesions were <3 cm in length, involving < half the circumference, and up to T2 (excluding cervical esophagus). Outcomes included local complete response (L-CR), irradiation dose (J), adverse events, progression-free survival (PFS), and overall survival (OS).

Results: Median age was 72 years (54-91), with 16 males and 3 females; all tumors were squamous cell carcinoma. Residual/recurrent disease was observed in 6/13 cases. Median irradiation dose was 176 J (88-530). The L-CR rate was 47%, improving to 63% including repeat PDT cases. L-CR rates were 73% for T1 and 13% for T2 lesions. No grade >2 adverse events were observed. One patient (5%) developed stricture requiring balloon dilation, and no photosensitivity occurred. Median follow-up was 23.5 months, with 3-year PFS and OS of 50% and 63%, respectively.

Conclusions: PDT for local residual or recurrent esophageal cancer after CRT was safely performed and may represent an effective salvage treatment option.

A-3-4 Efficacy of minimally invasive proximal gastrectomy followed by valvuloplastic esophagogastrostomy using the double flap technique in preventing reflux esophagitis

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(Background) Valvuloplastic esophagogastrostomy (VEG) using the double flap technique (DFT) after proximal gastrectomy (PG) represents a promising procedure for the prevention of reflux esophagitis. We aimed to retrospectively investigate the efficacy of minimally invasive PG followed by VEG-DFT in preventing reflux esophagitis among patients who require intra-mediastinal anastomosis.
(Method) A total of 80 patients who underwent reconstruction with DFT after LPG from November 2013 to January 2021 were enrolled in the present study. At 1 year after surgery, multivariate analyses were performed to identify risk factors for gastroesophageal reflux disease of Los Angeles (LA) classification grade B or higher.
(Result) The incidence of LA grade B or higher reflux esophagitis 1 year after surgery was 10%. Multivariate analyses revealed that the longitudinal length of the resected esophagus of >20 mm was the only significant risk factor for reflux esophagitis. Patients with a longitudinal length of the resected esophagus >20 mm (group-L, n=35) had a significantly longer total operative time and a higher rate of complications within 30 days of surgery than those with a length of < 20 mm (group-S, n=45). LA grade B or higher reflux esophagitis was significantly higher in group-L than in group-S (20% vs. 2.2%; P=0.011).
(Conclusions) This study suggests that there is room for surgical procedures with improved efficacy for the prevention of reflux esophagitis in patients requiring esophageal resection exceeding 20 mm.

A-3-5 Comparison of Reconstruction Methods after Laparoscopic Proximal Gastrectomy: Jejunal Interposition, Double-Flap, and Double-Tract

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Background: Proximal gastrectomy is increasingly performed for upper gastric and esophagogastric junction cancers to preserve postoperative function and improve quality of life. However, the optimal reconstruction method remains unclear, and no standard procedure has been established.
Methods: We retrospectively analyzed patients with upper gastric or esophagogastric junction cancer who underwent laparoscopic proximal gastrectomy at our institution. Reconstruction methods included jejunal interposition (IP) (2013-2017), double-flap technique (DFT) (2017-2025, standard procedure), and double-tract reconstruction (DT) for high anastomosis cases. Perioperative outcomes, postoperative complications, weight loss, and reflux esophagitis were compared among the groups.
Results: A total of 72 patients were included (IP: 12, DFT: 46, DT: 14). The proportion of esophagogastric junction cancer was higher in the DT group. No significant differences were observed in perioperative outcomes among the groups. Severe complications (Clavien-Dindo ≥ grade III) occurred in two patients each in the DFT and DT groups. Long-term outcomes, including weight loss at 6 months and 1 year, were comparable across groups. Reflux esophagitis was mild in all cases. Anastomotic stenosis was observed in four patients in the DFT group.
Conclusions: IP, DFT, and DT demonstrated comparable short- and long-term outcomes. Each reconstruction method can be safely applied in laparoscopic proximal gastrectomy, although careful attention is required to prevent anastomotic stenosis, particularly in DFT.

A-3-6 Comparable Recurrence-Free Survival but Worse Overall Survival After Curative Gastrectomy in Elderly Patients With Gastric Cancer

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Background: In elderly patients with gastric cancer, surgical treatment should be evaluated not only for oncologic curability but also for its impact on ultimate survival.
Methods: We retrospectively reviewed 694 patients who underwent curative gastrectomy at Nagasaki University Hospital between January 2007 and March 2025. Patients aged 75 years or older were assigned to the elderly group, and those aged 64 years or younger to the younger group. Short-term outcomes and long-term survival were compared. Wilcoxon and chi-square tests were used for clinicopathological comparisons, and survival was analyzed using the log-rank test and Cox proportional hazards model.
Results: The elderly group included 228 patients (median age, 80 years) and the younger group 218 patients (median age, 58 years). Sex distribution and surgical procedures were similar between groups. The elderly group had more advanced pathological stage disease. Severe postoperative complications (Clavien-Dindo grade III or higher) did not differ significantly, although postoperative hospital stay was longer in the elderly group (15 vs. 13 days, $p<0.005$). Recurrence-free survival was comparable between groups, whereas overall survival was significantly worse in the elderly group ($p<0.0001$). Among 68 deaths in the elderly group, 51% were cancer-related and 38% were due to other causes.
Conclusions: Elderly patients undergoing curative gastrectomy achieved recurrence-free survival comparable to that of younger patients despite more advanced disease. However, overall survival was significantly worse, indicating that non-cancer-related mortality substantially affects prognosis in this population.

A-4-1 Clinical significance of CT-detected lymph-node swelling in clinical T1 gastric cancer

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Background:
The clinical significance of CT-detected lymph node swelling in early gastric cancer remains unclear. This study aimed to evaluate the diagnostic accuracy of CT for lymph node metastasis in clinical T1 gastric cancer, focusing on positive predictive value and false-negative rate.

Methods:
Among 3,189 patients diagnosed with clinical T1 gastric cancer between 2011 and 2024, patients who received neoadjuvant chemotherapy, those with eCURA A or B lesions after ESD, and those treated with ESD alone were excluded. After removing duplicate lesions, 1,360 patients were included. Lymph nodes were considered positive on CT when the long-axis was ≥10 mm or short-axis ≥8 mm.

Results:
Among 1,360 patients, cN+ was observed in 54 patients (4.0%), and pathological nodal metastasis was confirmed in 13 patients, yielding a positive predictive value of 24.1%. Among 1,306 cN- patients, 116 were pathologically node-positive, corresponding to a false-negative rate of 89.9%. In subgroup analysis, the positive predictive value was 13.3% in cT1a and 28.2% in cT1b.

Conclusions:
CT-detected lymph node swelling should not be disregarded even in clinical T1 gastric cancer, whereas the absence of nodal swelling on CT does not exclude pathological nodal metastasis. These findings provide useful information for treatment decision-making in early gastric cancer.

A-4-2 Safety and Feasibility of Bridging Strategy Using Gastrojejunostomy Prior to Multimodal Therapy for Obstructive Gastric Cancer

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Background: Gastric outlet obstruction caused by advanced gastric cancer has traditionally been managed with upfront gastrectomy. Meanwhile, multimodal treatment including neoadjuvant chemotherapy (NAC) has improved outcomes in advanced gastric cancer. At our institution, we adopt a strategy of gastrojejunostomy followed by systemic therapy aiming to achieve disease control and improvement of general condition prior to curative resection. This study evaluated the safety and feasibility of this treatment approach.

Methods: We retrospectively reviewed consecutive patients with obstructive gastric cancer who underwent gastrojejunostomy followed by systemic therapy and subsequent gastrectomy between 2017 and 2025. Clinicopathological characteristics and perioperative outcomes were analyzed.

Results: Thirty-two patients were included. Median age was 67.5 years, and 71.9% were male. All bypass procedures were performed using a laparoscopic approach, and oral intake improved in all patients. Median interval from bypass to initiation of systemic therapy was 22 days, and the median number of treatment cycles was 4. Best response was partial response in 25% and stable disease in 75%, with no progressive disease observed before surgery. Gastrectomy included distal gastrectomy in 27 patients and total gastrectomy in 5 patients, performed via open (n=11), laparoscopic (n=10), or robotic (n=11) approaches. Major postoperative complications (Clavien-Dindo >=III) occurred in 6.3%, and R0 resection was achieved in all patients. Pathological complete response was observed in 6.3%, and adjuvant therapy was administered in 93.8%.

Conclusions: Gastrojejunostomy followed by systemic therapy was safe and feasible, enabling multimodal treatment including curative resection for obstructive gastric cancer in the contemporary treatment era.

A-4-3 Robotic Gastrectomy Reduced Severe Postoperative Morbidity Despite Longer Operative Time Compared with Contemporaneous Laparoscopic Surgery

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Background:
The clinical advantages of robotic gastrectomy(RG) over laparoscopic gastrectomy(LG) remain controversial, particularly during the early phase of a robotic program. This study evaluated the short-term outcomes of RG compared with contemporaneous LG performed by the same surgical team.
Methods:
We retrospectively analyzed 85 consecutive patients who underwent gastrectomy for gastric or esophagogastric junction cancer between March 2024 and March 2026 (RG: n=48; LG: n=37). Clinicopathological factors, operative outcomes, and postoperative complications were compared between two groups. Risk factors for complications of Clavien-Dindo [CD] grade≥II were evaluated using univariable and multivariable logistic regression analyses. Patient characteristics were comparable between groups.
Results:
D2 lymphadenectomy was performed more frequently in the RG group (p=0.01). Although operative time was significantly longer in the RG group (median 312.5 vs. 247.5 min; p<0.01), postoperative morbidity was significantly lower. CD grade≥II complications occurred in 2 RG patients vs. 8 LG patients (p=0.01). Multivariable analysis identified the laparoscopic approach (OR:13.7; 95% CI:2.56-117; p<0.01) and operative time>270 min (OR:12.0; 95% CI:1.51-261; p=0.02) as independent risk factors for CD grade≥II complications.
Conclusions:
Despite longer operative times, RG was associated with significantly lower postoperative morbidity compared with contemporaneous laparoscopic surgery. These findings suggest a potential advantage of the robotic approach in improving short-term postoperative outcomes.

A-4-4 Robotic Surgery for Remnant Gastric Cancer: Efficacy of Function-Preserving Strategies

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Background: Advances in function-preserving surgery and chemotherapy have led to an increasing incidence of remnant gastric cancer (RGC). Surgical intervention for RGC remains technically formidable due to anatomical alterations, dense adhesions, and diverse reconstruction requirements, which hinder procedural standardization. Since 2018, we have implemented robotic surgery for all gastric cancer cases, actively extending its application to RGC. Our strategy aims to preserve the gastric fundus in order to optimize the patient's quality of life after surgery, while ensuring oncological safety.
Methods: We retrospectively reviewed 26 patients (mean age 72.9 years; 6 males, 20 females) who underwent robot-assisted surgery for RGC between March 2018 and August 2025. Initial pathologies included 8 benign and 16 malignant cases. Subtotal gastrectomy was indicated for localized lesions, such as those at the anastomotic site, provided no lymph node metastases were detected in the preserved region.
Results: Procedural types included 9 subtotal and 17 total gastrectomies. No cases required conversion to open surgery. The median postoperative stay was 14.7 days for subtotal and 18.6 days for total gastrectomy. Clavien-Dindo grade > II complications occurred in three patients within the total gastrectomy group; all were successfully managed. The subtotal group exhibited superior nutritional outcomes, with significantly lower weight loss at 6 months (3.3% vs. 7.4%) and 1 year (5.8% vs. 10.7%) compared to the total gastrectomy group.
Conclusions: Robotic surgery for RGC is safe and feasible, providing excellent visualization and maneuverability in complex fields. Function-preserving strategies effectively mitigate postoperative weight loss and enhance patient QOL.

A-4-5 Impact of Anastomotic Level on Postoperative Functional Outcomes After Proximal Gastrectomy With Double Flap Technique Reconstruction for Esophagogastric Junction Cancer

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Background: Proximal gastrectomy (PG) with reconstruction using the double flap technique (DFT) is widely used in esophagogastric junction cancer (EGJC) surgery, owing to its superior anti-reflux properties. However, it remains unclear whether the anastomotic level-intrathoracic versus intra-abdominal-affects postoperative functional outcomes.

Methods: We retrospectively analyzed 80 patients who underwent PG with DFT for EGJC between 2015 and 2025. Patients were divided into two groups based on the anastomotic level: the intrathoracic group (n=30) and the intra-abdominal group (n=50). Gastroesophageal reflux disease (GERD), anastomotic stenosis, and the requirement for endoscopic balloon dilation (EBD) for stenosis at one year postoperatively were compared between the two groups.

Results: The intrathoracic group was significantly associated with older age and longer operative times. Although the incidence of GERD did not differ significantly between the two groups, the intrathoracic group showed a significantly higher incidence of anastomotic stenosis and a greater frequency of repeated EBD. Regarding surgical approaches, the thoracoscopic approach was associated with a higher incidence of subjective reflux symptoms, while the robotic-assisted approach showed a higher rate of repeated EBD.

Conclusion: PG with DFT in the EGJC surgery provides stable anti-reflux efficacy even when the anastomosis is located within the thoracic cavity. Although management of anastomotic stenosis remains a challenge in intrathoracic cases, DFT is a reliable reconstruction method that maintains postoperative anastomotic function and quality of life regardless of the anastomotic site.

A-4-6 Oncologic outcomes of conversion surgery for gastric cancer by non-curative factors: a multicenter retrospective cohort study

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Background: With advances in chemotherapy, conversion surgery for stage IV gastric cancer has increasingly been performed. However, its clinical significance and optimal indications remain unclear, particularly regarding the appropriate extent of resection when metastatic lesions appear to disappear after chemotherapy.

Methods: We retrospectively collected patients with cStage IVb gastric cancer who underwent curative-intent surgery after chemotherapy between 2011 and 2022 at our institution and 18 affiliated centers. Patients were stratified by non-curative factors and divided into resection including metastatic lesions (Mgroup) and primary tumor resection alone (Pgroup) . Three-year overall survival (3y-OS) was compared.

Results: A total of 237 patients were included. Non-curative factors included peritoneal dissemination/cytology-positive (n=123), distant lymph node metastasis (n=91), liver metastasis (n=33), lung metastasis (n=3), and others (n=7). Among 80 patients with peritoneal dissemination, 63 achieved ycP0; 3y-OS was 35.0% in the M group (n=10) and 48.0% in the P group (n=53) (HR 1.53, 95% CI 0.67-3.52). Among 55 patients with initially positive distant lymph nodes who achieved ycN0, 3y-OS was 59.5% in the M group(n=13) and 52.2% in the P group(n=42) (HR 0.79, 95% CI 0.32-1.95). Of 33 patients with liver metastasis, 19 achieved ycH0; only 2 underwent metastasectomy (3y-OS 100%), whereas 17 underwent primary tumor resection alone (63.1%).
Conclusions: In patients with peritoneal dissemination or distant lymph node metastasis, no clear survival benefit was observed with resection including metastatic sites after their disappearance following chemotherapy. For liver metastasis, few patients underwent metastasectomy after disappearance with chemotherapy; further case accumulation is needed.

A-5-1 A Case of Perforated Pseudodiverticulum of the Terminal Ileum with Peritonitis

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Introduction
Small intestinal diverticula are relatively rare in the gastrointestinal tract and are often asymptomatic. Most occur in the jejunum, whereas perforation of terminal ileal diverticula is uncommon. We report a case of perforated pseudodiverticulum of the terminal ileum presenting with generalized peritonitis.

Case Presentation
A 67-year-old man presented to a local hospital with epigastric and abdominal pain that had started the day before. Because signs of peritoneal irritation were noted, he was referred to our hospital. On examination, the abdomen was distended with board-like rigidity and muscular guarding. Laboratory tests showed elevated inflammatory markers. Contrast-enhanced abdominal computed tomography revealed fluid collection around an ileal diverticulum and disruption of the diverticular wall. Based on these findings, perforative peritonitis due to terminal ileal perforation was diagnosed, and emergency surgery was performed. Intraoperatively, a perforation was identified in the terminal ileum, and open ileocecal resection was performed. Histopathological examination confirmed perforation of a pseudodiverticulum of the terminal ileum. The postoperative course was uneventful, and the patient was discharged on postoperative day 13.

Discussion
Non-Meckel small intestinal diverticula occur in approximately 0.3-2.3% of the population, and only 10-30% are symptomatic. They occur predominantly in the jejunum, whereas ileal diverticula account for about 15%. Preoperative diagnosis is often difficult because the lesion is not always clearly visualized on imaging. In this case, disruption of the diverticular wall was detected on contrast-enhanced CT, enabling preoperative diagnosis.

Conclusion
Perforation of small intestinal diverticula is rare but should be considered in the differential diagnosis of acute abdomen.

A-5-2 Appendiceal Metastasis from Perihilar Cholangiocarcinoma: A Rare Case Report

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Background
Appendiceal metastasis from cholangiocarcinoma is extremely rare, with only four cases reported. We describe a case of appendiceal metastasis from perihilar cholangiocarcinoma that was initially suspected to be a primary appendiceal tumor.

Case Presentation
A 70-year-old woman was undergoing chemotherapy for perihilar cholangiocarcinoma. While conversion surgery was considered because of her good response to chemotherapy, computed tomography (CT) revealed a progressively enlarging appendiceal tumor, and elevating CA19-9. Colonoscopy showed a submucosal protrusion at the appendiceal orifice; biopsies showed no evidence of malignancy. Therefore, laparoscopic ileocecal resection was performed for both definitive diagnosis and treatment.

Results
Histopathology revealed adenocarcinoma infiltrating from the lamina propria to the subserosa at the appendix base. Immunohistochemistry (CK7 +, CK20 -, CDX-2 -/+) matched the profile of the patient's primary perihilar cholangiocarcinoma, supporting a diagnosis of appendiceal metastasis from perihilar cholangiocarcinoma.

Discussion
Including this case, only four cases of appendiceal metastasis from cholangiocarcinoma reported. Distinguishing these metastatic lesions from primary appendiceal tumors is crucial, because this diagnosis dictates the subsequent therapeutic strategy. In patients with a history of malignancy, metastatic disease should be considered when appendiceal enlargement or appendicitis-like symptoms appear.

Conclusion
Although rare, metastatic involvement should be considered in the differential diagnosis of appendiceal lesions in patients with prior internal malignancy, as it can significantly influence subsequent therapeutic decisions.

A-5-3 Treatment for anastomotic-vaginal fistula following rectal cancer surgery

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Background: Anastomotic-vaginal fistula (AVF) is a subtype of anastomotic leakage (AL) that often develops around 30 days post-surgery. Treatment for AVF includes stoma creation, use of estriol vaginal suppositories, and surgical repair, but it can be difficult to treat even with surgical repair. We report on the treatment and management for five patients with AVF.
Methods: From April 2017 to February 2026, 184 female patients underwent restorative surgery for low rectal cancer (105 LAR, 64 uLAR, 15 ISR). Diverting stoma (DS) was created for 20 patients with pelvic irradiation, severe obstructive colitis, dialysis, and liver cirrhosis.
Results: AL occurred in 7 patients without DS creation (1 LAR, 5 uLAR, 1 ISR), and all AL developed on the anterior wall of the anastomosis. In 2 patients, minor AL improved following stoma creation. Remaining 5 patients (4 uLAR, 1 ISR) developed AVF; 2 patients developed AVF (POD 25 and 25) following conservative treatment for minor AL (POD 11 and 20), and 3 patients developed AVF (POD 19, 27 and 29) without showing any signs of AL. Of the 5 patients who developed AVF, 2 patients were cured by stoma creation, and 3 patients were cured after stoma creation followed by slide repair technique; a method for repairing intestinal sutures and vaginal wall sutures so that the suture locations do not overlap.
Conclusions: For female patients with AVF after restorative surgery, stoma creation, estriol vaginal suppositories, and sliding repair technique were performed, resulting in favorable outcomes.

A-5-4 A Case of Intersigmoid Hernia Diagnosed and Treated Laparoscopically

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Intersigmoid hernia is a rare type of internal hernia in which the small intestine becomes incarcerated in the intersigmoid fossa, and preoperative diagnosis is often difficult. It is an important cause of small bowel obstruction, particularly in patients without a history of laparotomy. A 61-year-old man with no prior abdominal surgery presented with abdominal pain and vomiting and was transported to our hospital by emergency services. Abdominal computed tomography suggested strangulated small bowel obstruction; however, the exact cause of obstruction could not be identified preoperatively. Because strangulation could not be ruled out, emergency laparoscopic exploration was performed. Intraoperatively, the small intestine was found to be incarcerated in the intersigmoid fossa, and a diagnosis of intersigmoid hernia was made. The hernia orifice was incised, the incarcerated bowel was carefully reduced, and the defect was closed with sutures. Although the bowel color was temporarily compromised, it improved over time with preserved peristalsis, and bowel resection was not required. The postoperative course was uneventful, and the patient was discharged on postoperative day 9. Because preoperative imaging alone is often insufficient for definitive diagnosis, laparoscopic surgery is a useful approach for both diagnosis and treatment in patients with small bowel obstruction without prior laparotomy.These features highlight the importance of considering internal hernia in the differential diagnosis and support the role of minimally invasive surgery in similar cases.

A-5-5 A Case of Recurrence of Third GIST After Total Pelvic Exenteration with Right Ureter-Ileal Conduit Reanastomosis

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[Purpose]
We report a case of recurrence of a third GIST after total pelvic exenteration with right ureter-ileal conduit reanastomosis.
[Case]
A 52-year-old man. In 2006, he underwent abdominoperineal resection for rectal GIST at a previous hospital. In 2018, he underwent TPE at our department due to a local recurrence. In 2023, CT revealed a mass adjacent to the right anterior sacrum.
[Preoperative Procedure]
Bilateral ureteral stents were placed via endoscopic retrograde transileal conduit ureteral stent insertion.
[Surgical Procedure] Operative time: 372 minutes, blood loss: 680 ml. (1) While palpating the Single-J catheter inserted into the ileal conduit, severe and strong adhesions to the small intestine were dissected. Ileal perforation occurred during the procedure. (2) The ileal conduit was strongly adhered to the pelvic floor. Despite mobilization, the right ureteroileal conduit anastomosis ruptured. (3) The right levator muscle was exposed, and a bulging area was visualized and palpated. (4) The mass was confirmed using intraoperative ultrasound. (5) The third recurrent mass was removed by hollowing out the right levator muscle. it was confirmed to be a cone-shaped cell tumor (GIST). (6) Approximately 70 cm of the ileum, including the perforated ileum, was resected from the terminal ileum, and a functional end-to-end anastomosis was performed. (7) The right ureter-ileal conduit was anastomosed with a 4-0 PDS, and the preoperative Single-J catheter was placed in place.
[Conclusion]
Even after TPE, placing a ureteral stent allows for the location to be determined by palpation, preserving function.

A-5-6 Technical strategies of robot-assisted rectal resection for obese patients with rectal cancer

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Background: Robot-assisted rectal surgery has become standardized, but in obese patients, it is often difficult because their tissue is fragile and contains large amount of exudate resulting of not obtaining a clear surgical view. This study aimed to evaluate the short-term outcomes of robot-assisted rectal resection for obese patients, and to demonstrate technical strategies.
Technical strategies:
1.Difficulty in small bowel evacuation: Have the assistant apply pressure with the EndractorR to evacuate small bowel and ensure a small operative field of view.
2.Excessive exudate: A nelaton catheter connected to continuous suction is used for fluid and smoke evacuation.
3.Limited space within the pelvis: Modify the procedure of total mesorectal excision flexibly to dissect the easiest area.
Patients: A total of 102 patients who underwent robot-assisted rectal surgery at our hospital between 2022.1 and 2025.6.
Methods: Patients were divided into an obese group (O group; BMI >25, n=16) and a non-obese group (N group; n=86), and short-term outcomes were compared.
Results: Patient background differed significantly in tumor location (RS/Ra/Rb = 3/10/3(O group), 22/21/40(N group), $p<0.01$), but no significant differences were observed in other factors. The median operative time was significantly longer in the O group (416 min vs. 326 min, $p<0.01$), and median blood loss was also greater (48 mL vs. 11 mL, $p<0.01$). However, complication rates (25.0% vs. 31.4%, $p=0.77$) and median postoperative hospital days (14 vs. 12, $p=0.82$) were not significantly different.
Conclusion: These findings suggest that robot-assisted rectal resection can be safely performed in obese patients.

A-6-1 A Case of Chylothorax Suggesting the Efficacy of Intraoperative Talc Powder Pleurodesis

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Chylothorax is initially managed with conservative treatments such as a low-fat diet, fasting, or administration of somatostatin to reduce pleural effusion. However, in cases with massive effusion causing respiratory distress, thoracic drainage or pleurodesis may be required.
A 46-year-old woman presented with a 4-month history of progressive dyspnea and cough. She was referred to our hospital after being found to have a massive right pleural effusion. Laboratory tests revealed hypoalbuminemia (albumin 1.9 g/dL). Chest CT showed multiple small cystic lesions in both lungs. Thoracic drainage revealed milky pleural fluid, and pulmonary lymphangioleiomyomatosis (LAM) complicated by chylothorax was suspected. Because the chylothorax was refractory to conservative management, video-assisted thoracoscopic surgery (VATS) was performed for diagnostic and therapeutic purposes. No definite chyle leakage point was identified intraoperatively. A lung biopsy was obtained, and talc poudrage was performed to ensure uniform distribution throughout the pleural cavity. Postoperatively, pleural drainage rapidly decreased, and the chest tube was removed on postoperative day 5. The patient was discharged with an uneventful clinical course. After discharge, the pleural effusion was well controlled, and hypoalbuminemia gradually improved. Histopathological examination confirmed the diagnosis of LAM.
This case suggests that intraoperative talc poudrage may represent a minimally invasive and effective therapeutic option for refractory chylothorax associated with LAM. We report this case with a brief review of the literature.

A-6-2 Hybrid VATS Repair of Intercostal Lung Hernia Following Minimally Invasive Cardiac Surgery

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Background
Minimally invasive cardiac surgery (MICS) via a small intercostal thoracotomy is increasingly used as an alternative to median sternotomy. Although less invasive, complications such as intercostal lung hernia have occasionally been reported, and optimal surgical management remains unclear.
Methods
A 58-year-old man underwent mitral valve repair through a right mini-thoracotomy (MICS-MVP) for severe mitral regurgitation 10 years earlier. One year later, he noticed a protrusion in the right anterior chest during coughing. Initially it reduced spontaneously, but during the past two years he required manual reduction and was referred for surgery. Computed tomography demonstrated a lung hernia about 10 cm in diameter at the right fourth intercostal space.
Results
Hybrid VATS repair was performed. Thoracoscopy revealed no adhesions of the herniated lung. A pleura-covered defect about 13 cm long was identified at the fourth intercostal space. A 7-cm incision was placed slightly dorsal to the previous mammary fold incision. After creating a muscle flap outside the bony thoracic cage, the parietal pleura of the hernia sac was incised. A 1-mm expanded polytetrafluoroethylene patch was placed to reinforce the defect and fixed to surrounding intercostal muscles with nonabsorbable sutures. Operative time was 2 h 44 min with minimal blood loss. CT at 6 months showed no recurrence.
Conclusion
Intercostal lung hernia after MICS is rare but should be considered in patients with postoperative chest wall protrusion. Hybrid VATS repair with prosthetic patch reinforcement may be a safe and effective treatment.

A-6-3 Delayed Anastomotic Leakage after Lower Esophagectomy Successfully Treated Conservatively

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Background: The incidence of esophagogastric junction cancer has been increasing in Japan, and lower and middle thoracic esophagectomy with high intrathoracic esophagogastric anastomosis is being performed more frequently. Delayed anastomotic leakage after uneventful discharge is rare but can cause life-threatening empyema and mediastinitis. We report a case successfully treated with conservative management.

Case Presentation: A 68-year-old man underwent thoracoscopic middle and lower esophagectomy, laparoscopic proximal gastrectomy, and intrathoracic esophagogastric anastomosis for esophagogastric junction cancer. His postoperative course was uneventful, and he was discharged on postoperative day 12 with good oral intake. On postoperative day 16, he was transported to the emergency department because of chest pain and dyspnea. He had high fever, tachypnea, and elevated inflammatory markers. CT revealed delayed anastomotic leakage with right empyema, mediastinitis, and bilateral pneumonia. A right thoracic drain was immediately inserted, and his respiratory condition temporarily improved. However, he developed acute respiratory failure during CT examination on the following day and required emergency intubation. Despite antibiotic therapy and adjustment of thoracic drainage, the mediastinal abscess persisted and inflammatory markers remained elevated. Therefore, a mediastinal drain was endoscopically inserted through the perforation site into the abscess cavity. After this drainage procedure, his condition gradually improved. He resumed sufficient oral intake and was discharged on hospital day 24.

Conclusion: Delayed anastomotic leakage after intrathoracic anastomosis can be severe, especially after discharge. Prompt and appropriate thoracic and mediastinal drainage may allow successful conservative treatment.

A-6-4 A case of duodenal bulb cancer successfully treated by laparoscopic distal gastrectomy with intraoperative endoscopic guidance

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(Japanese Red Cross Osaka Hospital)

Introduction:
Duodenal cancer is a rare cancer, and treatment selection between endoscopic submucosal dissection (ESD) and surgical resection depends on the tumor depth and location. We report a case of duodenal bulb cancer, which was successfully treated by laparoscopic distal gastrectomy (LDG) with intraoperative endoscopic guidance.
Case Presentation:
A 76-year-old man with a history of NSAID-induced duodenal ulcer underwent follow-up upper gastrointestinal endoscopy, which revealed two adjacent 0-IIa+IIc adenocarcinomas on a scar in the duodenal bulb (cT1bN0M0, cStage I). He also had a concomitant type IV hiatal hernia (HH), which made endoscopic visualization difficult. Because the tumors were located on a scar and the risk of perforation with ESD was considered high, surgical resection was planned.
Surgical Procedure:
Accurate intraoperative localization of the tumor was required; however, endoscopic access to the duodenum was difficult due to the severe HH, so laparoscopic HH repair was performed first, restoring the stomach to its normal position. Intraoperative endoscopy identified the two tumors, with its distal margin 5 cm from the pylorus. After marking the distal margin, careful dissection between the duodenum and pancreas was performed. The duodenum was transected after endoscopic confirmation of a 2-cm distal margin. LDG with Roux-en-Y reconstruction was completed.
Conclusion:
We report a case of duodenal bulb cancer complicated by severe HH, successfully treated by LDG with intraoperative endoscopic guidance.

A-6-5 Laparoscopic technique of feeding jejunostomy via the gastric tube in minimally invasive esophagectomy

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Background:
Early enteral nutrition after esophagectomy is widely provided via jejunostomy, but conventional jejunostomy has a concern of bowel obstruction (BO). Although feeding jejunostomy via the gastric tube (FG) has been reported to avoid BO, all previous reports describe open procedures. We perform laparoscopic FG during minimally invasive esophagectomy (MIE) with retrosternal gastric tube reconstruction. This study reports the surgical technique and clinical outcomes.
Methods:
We retrospectively reviewed consecutive cases of esophageal cancer treated with MIE and laparoscopic FG between July 2022 and December 2025. Complications were evaluated using the Clavien–Dindo (CD) classification.
Surgical Technique:
Through a 4cm periumbilical mini-laparotomy, the specimen was extracted and a gastric tube was created. Using the Jejunostomy Catheter®, the catheter was inserted 30cm through the gastric tube, fixed to the gastric wall, and covered with the omentum. After retrosternal reconstruction, the catheter was laparoscopically exteriorized through the round ligament of the liver, which was then fixed to the abdominal wall with vascular clips.
Results:
A total of 76 patients underwent MIE and laparoscopic FG. The median postoperative follow up was 477.5 days. The catheters were removed in 61 patients, with a median time to removal of 76 days. Short-term catheter-related complications included surgical site infection (SSI) (CD II) in 2 patients, and a localized abscess (CD IIIa) in 1 patient. Long-term complications included SSI after catheter removal (CD II) in 3 patients, with no CD III or higher complications, including BO.
Conclusions:
Laparoscopic FG was minimally invasive, safe, and not associated with BO.

A-6-6 Robotic Spleen-Preserving Double-Sided (anterior and posterior) Splenic Hilar Lymph Node Dissection for Upper Advanced Gastric Cancer Invading the Greater Curvature

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[Introduction] The Japanese Gastric Cancer Association guidelines weakly recommend splenectomy or splenic hilar lymph node (No. 10) dissection for upper advanced gastric cancer invading the greater curvature. While anterior dissection is often sufficient when the pancreatic tail is close to the splenic hilum, we perform spleen-preserving double-sided (anterior and posterior) dissection for patients with a significant distance between them to ensure safe and reproducible dissection of the posterior arterial plane. We describe our plane-oriented dissection technique, leveraging robotic magnification and multi-articulated instruments.
[Indications] This technique is indicated for upper advanced gastric cancer invading the greater curvature where there is a long distance between the pancreatic tail and the splenic hilum. It also serves as a spleen-preserving alternative for cases with swollen No. 10 nodes that conventionally require splenectomy.
[Technique] Using a double-bipolar method, the omental bursa is opened following division of the greater omentum. The pancreatic tail is partially mobilized, while the spleen remains un-mobilized to ensure stability and prevent post-operative torsion. The gastrosplenic ligament is retracted cranially to create a dome-shaped space in the posterior hilum. To maintain hilar mobility, posterior dissection precedes the division of the left gastroepiploic and short gastric vessels. We carefully trace the peri-arterial nerve and peri-venous planes to achieve en bloc resection of lymphatic tissue.
After the posterior issection is completed, we proceed to the anterior dissection while dividing the vessels. At this stage, the pre-dissected posterior tissue is easily elevated through appropriate traction.

A-6-7 Mesogastric resection based on an embryological concept in the radical gastrectomy for gastric cancer

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Background

It goes without saying that radical gastrectomy involves resection of the mesogastrium. However, an understanding of mesenteric anatomy based on embryological principles is essential for performing this resection efficiently and with optimal precision while preserving the pancreas and major blood vessels. We describe the details of the embryology-based mesogastric resection performed at our institution, focusing on the infrapyloric region and the gastro-pancreatic fold.

Method

Infrapyloric region

Upon releasing physiological adhesion and retracting the right gastro-omental arterial bundles toward the patients left side, the gastro-duodenal mesentery unfolds into a single, flat sheet. A distinct depression is observed between the distribution areas of the infrapyloric arteries and veins and those of the anterior superior pancreaticoduodenal arteries and veins.

Gastropancreatic fold

The dorsal mesogastrium, which was originally a single sheet of mesentery, bulges significantly to the left and caudally during the embryonic period, forming the omental bursa, while the upper part of the stomach becomes fixed to the upper abdomen. In the process, the dorsal mesogastrium folds to form the gastro-pancreatic fold. In other words, the mesenteric tissue containing the left gastric artery, the pyloric branch of the inferior phrenic artery, and the splenic artery which supply the upper stomach exists within the gastro-pancreatic fold as if folded into it. Performing surgery based on this concept enables an optimal dissection technique with neither excessive nor insufficient resection during gastric cancer surgery.

Conclusion

Mesogastric resection based on an embryological concept enables to perform a safe and reproducible procedure.

A-6-8 Initial Clinical Experiences of Gastrectomy for Proximal Gastric Cancer Using the Da Vinci SP System

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Background

Robotic surgery for gastric cancer has become widely adopted, and we initiated distal gastrectomy for gastric cancer using the da Vinci SP system (DVSP) in March 2023, and subsequently expanded its indications to proximal gastrectomy (PG) and total gastrectomy (TG) for proximal gastric cancer.

Methods

We retrospectively reviewed the short-term outcomes of 16 patients who underwent PG or TG using the DVSP for proximal gastric cancer between May 2024 and November 2025. Surgery was performed in the spine position with a 10-12 head-up tilt. A midline incision of 3 cm was made while maintaining a distance of 15 cm from the xiphoid process, and an access port was placed, with an additional assistant port inserted on the patient's right side. The surgical field was developed using an organ retractor, and instrument collision was avoided by changing instrument positioning and rotation. The assistant performed clipping, using energy devices, and stapling. Reconstruction were performed intracorporeally.

Results

PG and TG were performed in 8 patients each. The median operative time was 447.5 minutes in the PG group and 499.5 minutes in the TG group, and the console time was 314 minutes and 380 minutes, respectively. The intraoperative blood loss was 37.5 mL in the PG group and 42 mL in the TG group. No intraoperative complications or conversion to other approaches were observed, and no postoperative complications of Clavien-Dindo classification grade IIIa or higher were observed within 30 days.

Conclusion

SP gastrectomy for proximal gastric cancer was suggested to be safely introduced.

A-6-9 Laparoscopic median arcuate ligament release: initial experience with single-incision laparoscopic surgery

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Background: Median arcuate ligament (MAL) syndrome is a rare disease treated by surgical ligament release. Based on our expertise in single-port gastrectomy, we applied this approach to MAL release. We will present the surgical procedure and the short-term outcome.

Methods: Nine patients underwent laparoscopic MAL release at our institution between 2020-2026. The four most recent cases were performed through single-incision laparoscopic surgery. Patients were placed in the split-leg supine position and accessed through a single-port access device in umbilical incision. The left lateral hepatic segment was retracted and the lessor omentum was divided. Following dissection of the anterior surface of the right diaphragmatic crus, gastropancreatic fold including left gastric artery and vein was retracted towards the left lower abdomen using organ retractor. The MAL anterior to the celiac artery was divided using an ultrasonic energy device. Intraoperative ultrasonography assessed celiac artery flow before and after division. We report short-term outcomes and present a video demonstrating our technique.

Results: All nine laparoscopic cases were completed without conversion or major complications. Among the four single-port cases, median operative time was 119 minutes, median blood loss was 0 mL (range 0-10), and median postoperative stay was 3.5 days. All four patients achieved symptomatic improvement.

Conclusions: Single-port laparoscopic MAL release is safe and feasible.

A-7-1 Clinical significance of C-reactive protein-albumin-lymphocyte index (CALLY) in elderly patients with colorectal cancer

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Purpose: This study aimed to investigate the association between the C-reactive protein-albumin-lymphocyte (CALLY) index and long-term prognosis and postoperative complications in elderly patients with colorectal cancer (CRC).
Methods: Three-hundred three patients with pStage I-III CRC who underwent curative surgery at our institution between 2015 and 2022 were retrospectively analyzed. Patients aged over75 years were defined as elderly patients.
Results: In the overall cohort, low CALLY index was an independent prognostic factor (hazard ratio (HR) = 2.42, 95% confidence interval (CI): 1.31-4.47, p = 0.004). The age-stratified analysis revealed that a low CALLY index was associated with poorer prognosis and was an independent prognostic factor in elderly patients (HR = 3.46, 95% CI: 1.44-8.30, p = 0.005), whereas no independent prognostic significance was observed in non-elderly patients. Moreover, although the CALLY index was not associated with postoperative complications in non-elderly patients, low CALLY index was an independent risk factor for postoperative complications in elderly patients (odds ratio = 3.93, 95% CI 1.49-10.3, p = 0.005).
Conclusion: The CALLY index is a valuable predictor of both short- and long-term outcomes in patients with pStage I-III CRC, with a particularly strong impact in elderly patients aged over 75 years compared to non-elderly patients.

A-7-2 Short- and Long-Term Outcomes of Emergency Surgery for Colorectal Cancer as an Oncologic Emergency

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[Background] Colorectal cancer (CRC) frequently presents as an oncologic emergency, such as perforation or obstruction, and often requires urgent surgery. The aim of present study was to investigate the short- and long-term outcomes of emergency surgery.
[Methods] We retrospectively analyzed 351 patients with stage II-IV CRC who underwent tumor resection between 2016 and 2023. Patients were classified into emergency surgery group (Group E, n=26) and elective surgery group as control (Group C, n=325). Short- and long-term outcomes were compared between the groups. Propensity score matching (PSM) analysis was performed using age, sex, surgical approach, T and N factors, and TNM stage to reduce confounding.
[Results] (1) Indications for emergency surgery included perforation (n=17), obstruction (n=8), necrosis (n=1), and intussusception (n=1). Tumor stage did not differ significantly between the groups. Open surgery was more frequent in Group E (92.3 vs. 43.2%, p<0.001). Group E had a higher rate of postoperative complications (32.0 vs. 16.1%, p=0.046) and longer postoperative hospital stay (34 vs. 14 days, p<0.001). There was no significant difference in postoperative mortality (0% vs. 1.23%, p=0.569) or 5-year overall survival (55.9% vs. 64.3%, p=0.641).
(2) Twenty-five patients in Group C and E were identified using PSM. No significant differences were observed in the frequency of postoperative complications and prognosis between the two groups.
[Conclusions] Emergency surgery for CRC was associated with higher postoperative morbidity and longer hospital stay, but showed comparable mortarity and long-term survival to elective surgery, suggesting that acceptable oncological outcomes can be achieved.

A-7-3 Early Exposure to Robotic Colorectal Surgery from Junior Residency: A Single-Surgeon Experience

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Background: Robotic-assisted surgery is increasingly adopted; however, opportunities for early-stage surgeons to serve as primary surgeons remain limited. I obtained certification in robotic surgery during my junior residency and initiated robotic surgical training. This study aimed to evaluate the safety and feasibility of robotic surgery performed by an early-stage surgeon.

Methods: We retrospectively reviewed 16 colorectal procedures performed by a single surgeon from junior residency through the first year of senior residency, under direct supervision of experienced attending surgeons.

Results: The procedures included 1 anterior resection, 11 low anterior resections, 1 ultra-low anterior resection, 1 sigmoid colectomy, and 1 right hemicolectomy. All procedures were completed robotically without conversion to open surgery. No intraoperative complications were observed. The median operative time was 433 minutes (range, 197-628 minutes), and the median blood loss was 10 mL (range, 3-130 mL). The median postoperative hospital stay was 10 days (range, 7-29 days), comparable to previous reports. One patient experienced a postoperative complication of Clavien-Dindo grade IIIb or higher, and no mortality occurred.

Conclusion: Robotic-assisted colorectal surgery performed by an early-stage surgeon under appropriate supervision is safe and feasible. Early and continuous exposure may contribute to effective skill development and sustained motivation in surgical training.

A-7-4 Surgical outcomes of robot-assisted rectal cancer surgery using five different platforms: A single-center experience

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Background: Various robotic platforms have been introduced for rectal cancer surgery. This study reports the surgical outcomes of robot-assisted rectal cancer surgery performed using five different robotic systems at a single-center setting.

Methods: We analyzed 270 patients who underwent robot-assisted rectal cancer surgery between November 2022 and December 2025. The platforms utilized were da Vinci Xi, da Vinci 5, da Vinci SP, hinotori, and Hugo RAS system. Surgical outcomes, including operative parameters and postoperative recovery, were evaluated for each platform.

Results: A total of 270 cases were completed. The median patient age for da Vinci Xi, 5, SP, hinotori, and Hugo was 66, 77, 71, 69, and 73 years, respectively. The distribution of ASA physical status was recorded for each group. The median console times were 181, 152, 204, 194, and 188 minutes, and the median estimated blood loss was 23, 8, 24, 14.5, and 15 mL, respectively. The median postoperative hospital stay was 13, 9, 16, 14, and 11 days. Major postoperative complications (Clavien-Dindo Grade >= IIIa) occurred in 4, 0, 7, 4, and 2 cases. Procedures including HAR, LAR, ISR, APR, or Hartmann's procedure were performed based on clinical indications and the specific platform's capabilities.

Conclusion: This study presents the clinical outcomes of robot-assisted rectal cancer surgery across five different platforms in a single-center setting. The operative parameters and postoperative results for each robotic system were documented.

A-7-5 Impact of the COVID-19 Pandemic on Stage Distribution and Survival Outcomes in Colon Cancer in Western Saitama, Japan: A Single-Center Retrospective Cohort Study

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Background: The COVID-19 pandemic has disrupted cancer screening programs and reduced access to healthcare, raising concerns about delays in the diagnosis and treatment of colon cancer. This study aimed to evaluate the impact of the pandemic on clinicopathological characteristics, stage distribution, and prognosis in patients with colon cancer.
Methods: We conducted a single-center retrospective cohort study including patients who underwent surgical resection for colon cancer. The pre-pandemic group comprised patients treated in 2018, while the pandemic group included those treated between 2020 and 2021. Patients with rectal cancer were excluded. Short-term and long-term postoperative outcomes were evaluated.
Results: A total of 753 patients were included (260 in the pre-pandemic group and 493 in the pandemic group). The pandemic group showed significantly higher rates of lymphatic invasion, venous invasion, N2 disease, and Stage IV disease, suggesting an increase in advanced-stage cases at diagnosis. Overall survival was significantly worse in the pandemic group (log-rank $p = 0.036$). In contrast, the 3-year recurrence-free survival among patients with Stage I-III disease was 88.4% in the pre-pandemic group and 83.7% in the pandemic group, with no significant difference (log-rank $p = 0.102$; hazard ratio 1.45, 95% CI 0.93-2.26).
Conclusions: During the pandemic period, a higher proportion of advanced stage disease and worse overall survival were observed; however, recurrence-free survival among patients undergoing curative resection remained unchanged. These findings suggest that the deterioration in prognosis was primarily attributable to stage migration at diagnosis.

A-7-6 Short- and long-term outcomes of robotic versus conventional laparoscopic surgery for mid and low rectal cancer after chemoradiation

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Background: In curative resection for locally advanced rectal cancer after chemoradiotherapy (CRT), minimal invasive surgery becomes more difficult. This study aimed to compare the short- and long-term outcomes of RS versus LS after CRT for rectal cancer.
Methods: A total of 115 consecutive patients (RS 37 vs LS 78) who underwent RS or LS after CRT for mid and low rectal adenocarcinoma with cStage II / III, between January 2014 to December 2022, were enrolled. Their short- and long-term outcomes were compared, retrospectively.
Results: The rates of postoperative complications (Clavien-Dindo II or higher) were significantly fewer in the RS than the LS (8.1 % vs. 37.2 %, respectively, $p = 0.0005$). In terms of the complication, though the rate of urinary retention (0.0 % vs. 6.4 %, $p = 0.0458$) and the rate of anastomotic leakage (0.0 % vs. 20.5 %, $p = 0.0167$) were significantly fewer in the RS than LS. The RS had a shorter period in the days of soft diet (1.0 day vs. 3.0 days, $p < 0.0001$) and the duration of postoperative hospital stay (9.5 days vs. 12 days, $p = 0.0006$). The operation time (382 min. vs. 344 min., $p = 0.0188$) was significantly longer in the RS group. Duration of median follow-up was 44 months and 69 months, respectively (RS vs. LS). There were no significant differences in the survival rates between 2 groups.
Conclusion: RS after CRT for rectal cancer reduces postoperative complications and the duration of postoperative hospital stay.

A-8-1 Exploratory Specified Clinical Study of PuraStat® for Intraoperative Bleeding in Minimally Invasive Gastrectomy

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Background: Most reports on hemostatic agents for intraoperative bleeding during gastrectomy have focused on open surgery. PuraStat® is a synthetic peptide hemostatic agent that is approved for intraoperative hemostasis in Europe, but it is not covered by insurance in Japan.
Objective: To explore the efficacy and safety of PuraStat® for intraoperative bleeding during minimally invasive gastrectomy.
Patients and Methods: This was a single-center, prospective, specified clinical study including patients scheduled for minimally invasive gastrectomy for gastric cancer. PuraStat® was planned to be applied for bleeding not controllable by gauze compression, specifically at gastrointestinal stump and along the superior border of the pancreas. Patient enrollment started in May 2024, and by January 2025, 20 cases in which PuraStat® was used were registered.
Results: The patient characteristics were as follows: 13 males (65%) and 7 females (35%). The surgical procedures included distal gastrectomy in 18 patients (90%) and total gastrectomy in 2 patients (10%). The surgical approach was laparoscopic in 14 patients (70%) and robotic in 6 patients (30%). Additionally, 5 patients (25%) were receiving anticoagulant or antiplatelet therapy. The primary endpoint--proportion of cases achieving hemostasis within 3 minutes after PuraStat® application--was 100%. Key secondary endpoints included: time to hemostasis, 35.5 seconds (interquartile range 23–57 seconds); proportion requiring additional hemostatic procedures, 10%; volume of PuraStat® used, 1.7 ml (interquartile range 1.0–2.5 ml). No adverse events causally related to PuraStat® were observed.
Conclusion: PuraStat® appears to be safe and effective for controlling intraoperative bleeding during minimally invasive gastrectomy.

A-8-2 The Relationship Between Postoperative Muscle Loss and Prognosis in Gastrointestinal Cancer

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[Introduction]
Although it has been reported that preoperative muscle mass is associated with prognosis in gastrointestinal cancer, few studies have examined the relationship between postoperative muscle loss and prognosis. This study investigated this association.
[Subjects and Methods]
A retrospective analysis was conducted on 313 patients who underwent curative surgery between October 2020 and December 2023. The psoas muscle index (PMI) was measured preoperatively and at 6 months postoperatively, and the presence or absence of a decrease in PMI and preoperative blood test findings were compared according to the occurrence of cancer-related death.
[Results]
During the observation period, 57 patients died of cancer-related causes. Of these, 35 showed a decrease in PMI at 6 months postoperatively, whereas 22 did not ($P = 0.0029$). The group with a decrease in PMI had a significantly poorer prognosis ($P = 0.0034$). Furthermore, significant differences were observed between the groups in preoperative prealbumin (preAlb) and C-reactive protein (CRP) levels. In multivariate analysis, a decrease in PMI ($P < 0.001$) and low preAlb levels ($P = 0.023$) were identified as independent risk factors.
[Discussion and Conclusion]
A reduction in muscle mass at 6 months post-surgery was associated with an increased risk of cancer-related mortality and a poor prognosis. This suggests that maintaining skeletal muscle mass post-surgery may contribute to improved prognosis in patients with gastrointestinal cancer.

A-8-3 Clinical significance of perioperative phase angle monitoring for predicting prognosis after gastrectomy for gastric cancer

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Background: As gastrectomy for gastric cancer imposes a substantial physiological burden, evaluating perioperative dynamic changes is critical for characterizing host resilience, which may influence long-term outcomes. We aimed to evaluate the prognostic impact of perioperative deterioration in phase angle (PA) in patients undergoing gastrectomy and identify factors associated with this decline.

Methods: We retrospectively analyzed 650 patients who underwent curative gastrectomy between 2015 and 2020. PA was measured by bioelectrical impedance analysis preoperatively and at 1 month postoperatively. Patients were classified into three groups: Good, Deterioration, and Stable Poor. The primary endpoint was 5-year overall survival (OS). Cox and logistic regression analyses evaluated the prognostic impact of PA deterioration and factors associated with its decline.

Results: Among 650 patients, 390 (60%) were classified as Good, 57 (8.8%) as Deterioration, and 203 (31.2%) as Stable Poor. Five-year OS was lower in the Deterioration (78.3%) and Stable Poor (78.5%) groups than in the Good group (92.4%) (p<0.001). PA deterioration was independently associated with increased mortality (HR, 2.95; 95% CI, 1.58-5.51; p=0.001) after adjustment for stage and complications. Postoperative complications (Clavien-Dindo grade >=2) were associated with PA decline (OR, 2.06; 95% CI, 1.02-4.18; p=0.045). Even in patients without complications, PA deterioration remained independently associated with worse survival (HR, 3.39; 95% CI, 1.61-7.16; p=0.002).

Conclusions: Perioperative deterioration in PA reflects impaired physiological resilience and independently predicts poor survival after gastrectomy. Its prognostic impact is not fully explained by complications. As a modifiable parameter, PA monitoring may support resilience-based risk stratification.

A-8-4 Comprehensive inflammatory–nutritional assessment for risk stratification of complications in acute cholecystitis

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Aims: Emergency surgery for acute cholecystitis is sometimes associated with serious postoperative complications. The aim of present study was to investigate predictive value of a comprehensive assessment incorporating comorbidity and inflammatory-nutritional status for postoperative complications.
Methods: This retrospective study included 151 patients who underwent emergency surgery for acute cholecystitis between 2019 and 2025. Patients were classified into the laparoscopic surgery group (Group L, n=138) and the open surgery group (n=13). C reactive protein-albumin-lymphocyte (CALLY) index was calculated using serum albumin, lymphocyte count, and C-reactive protein. The optimal cut-off value for postoperative complications was determined using ROC analysis.
Result: (1) The severity of cholecystitis, CCI, and low CALLY index were significantly associated with complications. A combined risk score was defined as follows; patients with both CCI>=7 and low CALLY were allocated a score of 2, patients with only one or none of these abnormalities were allocated a score of 1 or 0. The postoperative complication rate was stratified according to the combined risk score (0: 2.13%, 1: 21.2%, 2: 40.0%; p<0.001). A score of 1 or 2 was an independent predictor of postoperative complications (OR=11.6, 95% CI: 2.43-55.4, p=0.002).
(2) Subgroup analysis in Group L similarly revealed that a score of 1 and 2 was an independent predictor of postoperative complications (OR=8.83, 95% CI: 1.75-44.3, p=0.008).
Conclusion: Comprehensive evaluation incorporating severity of comorbidity or inflammatory-nutritional status may contribute to risk stratification for postoperative complications.

A-8-5 Optimal Timing of Laparoscopic Cholecystectomy for Acute Cholecystitis After Percutaneous Transhepatic Gallbladder Drainage (PTGBD)

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Background
While the indications for surgical treatment of acute cholecystitis have expanded following the introduction of the Tokyo Guidelines 2018 (TG18), the optimal timing of surgery after PTGBD remains controversial.

Methods
We retrospectively analyzed 80 patients with acute cholecystitis who underwent laparoscopic cholecystectomy after PTGBD based on TG18 at our institution between January 2018 and June 2024. Patients were divided into three groups according to the interval from PTGBD to surgery: <1 week (Group A), 1-<8 weeks (Group B), and ≥ 8 weeks (Group C). Histopathological findings of the resected gallbladder were also evaluated, classifying cases as severe inflammation (SI) or weak inflammation (WI), and their association with surgical timing was assessed.

Results
Group A showed worse surgical outcomes compared with Groups B and C, including longer operative time (208 vs. 143 vs. 133 minutes), greater blood loss (98 vs. 5 vs. 10 mL), and longer postoperative hospital stay (14 vs. 5 vs. 5 days). The rates of subtotal cholecystectomy were 40%, 13%, and 9%, respectively. Major postoperative complications (Clavien-Dindo grade ≥ IIIa) occurred in 20%, 0%, and 5.5% of patients, respectively, and were more frequent in Group A. The proportion of SI cases was significantly higher in Group A than in the other groups, whereas no significant difference was observed between Groups B and C.

Conclusions
It was suggested that once acute inflammation has subsided after at least one week following PTGBD, the waiting interval may have a minimal impact on surgical outcomes.

A-8-6 Duodenal Fistulas in Crohn's Disease: Surgical Outcomes and Risk Factors

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Background
Duodenal fistulas in Crohns disease (CD) are rare and technically challenging, and the optimal surgical strategy remains unclear. This study aimed to clarify clinical characteristics, surgical outcomes, and risk factors for postoperative complications in CD patients with duodenal fistulas.

Methods
We conducted a single-center retrospective study of 135 patients who underwent surgery for CD-associated enteroenteric fistulas between 2007 and 2024. Among them, 13 patients had duodenal fistulas. Surgical outcomes were compared between patients with and without duodenal fistulas. Risk factors for postoperative complications of Clavien Dindo grade >=2 were analyzed using logistic regression.

Results
Patients with duodenal fistulas had significantly longer disease duration and lower preoperative nutritional status, including albumin and prognostic nutritional index, than those without. Open surgery and greater intraoperative blood loss were more frequent in the duodenal fistula group. However, the incidence of postoperative complications, including grade >=2 and >=3 complications, did not differ significantly between groups, and the presence of a duodenal fistula was not an independent risk factor. Within the duodenal fistula cohort, an interval >=200 days from diagnosis to surgery and intraoperative blood loss >=500 mL were significant predictors of postoperative morbidity. No recurrence of duodenal fistula or duodenal stenosis was observed during follow-up.

Conclusions
Standardized surgical management with primary closure and adequate decompression is safe and effective. Delayed surgical intervention may increase postoperative morbidity, underscoring the importance of early referral to specialized centers.

A-9-1 Quantitative Bone Scintigraphy for Evaluating Active Mandibular Condylar Resorption in Patients with Jaw Deformities

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Purpose:
Mandibular condylar resorption in patients with jaw deformities may affect postoperative stability and the development of temporomandibular joint (TMJ) symptoms. This study aimed to investigate the relationship between quantitative bone scintigraphy findings, condylar morphology, and TMJ symptoms, and to evaluate the clinical utility of bone scintigraphy as an indicator of active condylar resorption.
Methods:
Sixteen patients who visited our hospital between March 2020 and April 2025 and demonstrated mandibular condylar resorption on CT before orthodontic treatment were included. All patients underwent bone scintigraphy using 99mTc-HMDP. Quantitative analysis was performed using GI-BONE, with regions of interest placed in the mandibular condyle and occipital bone. SUVmax, SUVpeak, and SUVmean were calculated.
Results:
The study included 13 females and 3 males with a mean age of 26.8 years. Condylar resorption was observed in 16 patients (27 sides), and TMJ symptoms were present in 7 patients (10 sides). Symptomatic sides tended to show higher SUVmax, SUVpeak, and SUVmean values than asymptomatic sides, although the differences were not statistically significant.
Conclusion:
TMJs with active condylar resorption tended to demonstrate increased SUV values. Quantitative bone scintigraphy may serve as a useful preoperative screening tool for assessing condylar metabolic activity and may function as an adjunctive indicator for treatment planning and prognosis prediction in patients with jaw deformities.

A-9-2 Development of a Postoperative Infection Risk Prediction Model for Wisdom Tooth Extraction Using TabNet and Conventional Machine Learning Algorithms

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[Introduction] Postoperative infection following wisdom tooth extraction is a common surgical complication; however, preoperative prediction using machine learning has not been established. This study aimed to compare predictive models for postoperative infection after mandibular wisdom tooth extraction and to identify high-risk factors.
[Subjects and Methods] A total of 501 cases who underwent mandibular wisdom tooth extraction at the Department of Oral and Maxillofacial Surgery, Kagawa University were enrolled. Thirty-eight risk factors including sex, age, diabetes, follicular cyst, and Winter classification were used as features. Random Forest (RF), XGBoost (XGB), LightGBM (LGBM), and TabNet were applied and evaluated by 10-fold cross-validation. AUC was compared using paired t-test and sensitivity using McNemar's test ($p<0.05$). Feature importance was assessed using SHAP Beeswarm plots.
[Results and Discussion] TabNet demonstrated the best performance, significantly outperforming RF, XGB, and LGBM. Conventional ML models showed severe overfitting, whereas TabNet showed minimal overfitting. Prediction correlation analysis revealed low correlation coefficients (0.28-0.34) between TabNet and conventional models, suggesting TabNet independently identified cases undetectable by other models. SHAP analysis identified hemostatic agent use as the top feature across all models. Strict postoperative management is recommended for patients with follicular cyst or inferior alveolar nerve involvement.

A-9-3 Identification of osteoporosis using ensemble deep learning model with panoramic radiographs and clinical covariates

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Osteoporosis is becoming a global health issue due to increased life expectancy. However, it is difficult to detect in its early stages owing to a lack of discernible symptoms. Hence, screening for osteoporosis with widely used dental panoramic radiographs would be very cost-effective and useful. In this study, we investigate the use of deep learning to classify osteoporosis from dental panoramic radiographs. In addition, the effect of adding clinical covariate data to the radiographic images on the identification performance was assessed. For objective labeling, a dataset containing 778 images was collected from patients who underwent both skeletal-bone-mineral density measurement and dental panoramic radiography at a single general hospital between 2014 and 2020. Osteoporosis was assessed from the dental panoramic radiographs using convolutional neural network (CNN) models, including EfficientNet-b0, -b3, and -b7 and ResNet-18, -50, and -152. An ensemble model was also constructed with clinical covariates added to each CNN. The ensemble model exhibited improved performance on all metrics for all CNNs, especially accuracy and AUC. The results show that deep learning using CNN can accurately classify osteoporosis from dental panoramic radiographs. Furthermore, it was shown that the accuracy can be improved using an ensemble model with patient covariates.

A-9-4 Microvascular Anastomosis and Bypass Training in the Endovascular Era: A Trainee's Experience in Japan

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Background:
The rapid expansion of endovascular therapy has transformed cerebrovascular practice; however, microvascular anastomosis and cerebral bypass remain indispensable for selected complex aneurysms, moyamoya disease, skull base tumors, and challenging cerebrovascular lesions. As case volumes for open vascular surgery decline in many centers, preserving and systematically cultivating microsurgical bypass expertise has become increasingly important for the training of modern hybrid neurosurgeons.
Methods:
During a clinical fellowship in Japan, the author participated in a structured cerebrovascular training program at a high-volume academic institution emphasizing both endovascular and microsurgical disciplines. Microsurgical training followed a graduated, competency-based progression beginning with basic suturing exercises, followed by synthetic vessel anastomosis using progressively smaller-caliber models (2 mm to 1 mm), and advanced operative microscope simulation incorporating high magnification, foot-pedal control, and ergonomic precision. Training focused on ambidextrous technique development, fine motor control, and suturing within deep, narrow operative corridors. Biological simulation using chicken wing vessels was integrated to replicate vessel dissection, adventitial preparation, and live-tissue anastomosis. Supplemental observational experiences at multiple specialized cerebrovascular centers provided comparative exposure to diverse philosophies in bypass strategy, clipping techniques, and complex vascular reconstruction.
Results:
This multimodal and stepwise training paradigm enhanced microsurgical dexterity, technical precision, depth perception, operative endurance, and confidence in performing superficial and deep-field vascular anastomosis. Exposure to varied institutional practices broadened strategic decision-making and adaptability while reinforcing the importance of technical versatility in contemporary cerebrovascular surgery.
Conclusion:
Despite the dominance of endovascular approaches, mastery of microvascular anastomosis and bypass remains essential for comprehensive cerebrovascular neurosurgical practice. A structured training framework integrating simulation, biological models, microscope-based technical progression, and multicenter exposure offers an effective strategy for preserving and advancing bypass competency in the next generation of hybrid neurosurgeons.

A-9-5 Evolution of Skull Base and Cerebrovascular Surgery: A Trainee's Experience in Japan from Microscopic to Endoscopic and Robotic Approaches

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Modern neurosurgery requires a seamless integration of microscopic, endoscopic, and robotic modalities. This report details an intensive training experience in Japan, centered at Fujita Health University Hospital and supplemented by visits to several specialized centers. Under the mentorship of expert skull base and cerebrovascular surgeons, I engaged in a comprehensive curriculum designed to bridge traditional microsurgery with emerging technological frontiers.

The foundation of this training involved cadaveric dissections. Using endoscopic approaches, I explored sagittal corridors—including transplanum and transclival routes—and coronal planes, such as extensive transpterygoid and transjugular access. Key procedures included carotid artery mobilization, posterior clinoidectomy, and transorbital exposure of Meckel's cave. These exercises provided a 360-degree understanding of complex anatomy that a single modality cannot offer.

Innovation was further pursued through robotic-assisted surgery. Robotic systems were applied to intricate tasks like vascular and mucosal suturing, as well as posterior clinoidectomy. Specifically, these technologies were utilized in cadaveric studies for microvascular bypass and transoral craniovertebral dural repair, demonstrating the potential for robotics to enhance dexterity in deep, restricted surgical corridors.

This multimodal exposure has provided a robust framework for managing complex cranial and vascular pathologies. The synergy of microscopic precision, endoscopic visualization, and robotic dexterity represents a transformative paradigm in neurosurgery. Mastering these complementary approaches is essential for the next generation of surgeons to advance clinical outcomes and surgical innovation.

A-10-1 RIPK4 promotes the progression of gastric cancer via NF-κB signaling and regulates PD-L1 expression

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[Background] RIPK4, initially identified as a regulator of keratinocyte differentiation, is involved in multiple tumor&ndashrelated signaling pathways and is dysregulated in serval types of tumors. However, its role in gastric cancer (GC) remains unclear.
[Method] Method 1: A total of 64 patients with unresectable, advanced or recurrent gastric cancer who received nivolumab (2017&ndash2024) were retrospectively collected. Immunohistochemical staining was used to evalutae RIPK4 expression and its association with overall survival (OS) and progression free survival (PFS) were analyzed. TCGA&ndashSTAD RNA&ndashseq data were analyzed to evaluate the correlation between *RIPK4* and *CD8A* expression.
Method 2: In GC cell lines, RIPK4 was knocked&ndashdown by siRNA and its effects on NF&ndash&KappaB signaling activity, PD&ndashL1 and its upstream signaling pathways were analyzed using western blot and PCR.
Method 3: Cell viability assay was performed to assess the impact of RIPK4 knockdown on cell proliferation.
[Results] Result1: RIPK4&ndashpositive status was correlated with worse PFS (p=0.033, HR 1.80, 95%CI: 1.05&ndash3.11). TCGA analysis showed significantly lower *CD8A* expression in *RIPK4*&ndashhigh group (p=0.0023).
Result 2: In vitro analysis, RIPK4 knockdown suppressed both canonical and non&ndashcanonical NF&ndash&KappaB signaling pathways.
Result 3: RIPK4 knockdown led to upregulation of PD&ndashL1 in vitro, accompanied by activation of the JAK/STAT&ndashIRF signaling axis.
Result 4: RIPK4 knockdown inhibited proliferation of GC cell lines.
[Conclusion] RIPK4 may function as a promoting factor in GC tumorigenesis and appears to regulate NF&ndash&KappaB signaling. RIPK4 regulates PD&ndashL1 expression and suggests a potential role in influencing tumor immune microenvironment.

A-10-2 Predict factors of immune-related adverse events in triple-negative breast cancer patients treated with immune checkpoint inhibitors- a single center retrospective analysis

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Background:
The addition of immune checkpoint inhibitors (ICIs) have dramatically improved outcomes of triple-negative breast cancer (TNBC) in both early-stage (EBC) and metastatic (MBC) settings. With the increased use of ICIs in clinical practice, we aimed to retrospectively investigate the real world incidence and predictive factors of immune-related adverse events (irAEs) in TNBC patients treated with ICIs.

Methods:
The study included 73 patients treated with pembrolizumab or atezolizumab at our hospital between February 2023 and October 2025. Associations between the onset of all-grade irAEs and clinicopathological factors were evaluated using logistic regression analysis.

Results:
Patient's median age was 51 years (range, 27-78); 46 and 27 cases were EBC and MBC, respectively. Among them, all-grade and grade over 3 irAEs occurred in 32 (43.8%) and 12 (16.4%) patients, respectively. Median time to irAE onset was 100 days (range, 6-488). The most frequent irAE was adrenal insufficiency (n=13, 17.8%), followed by thyroid dysfunction (n=9, 12.3%). Grade over 3 irAEs included adrenal insufficiency (n=5), diabetes (n=2), colitis (n=2), dermatitis (n=2), and interstitial pneumonia (n=1). In univariate analysis, all-grade irAEs tended to be associated with low Ki-67 (p=0.052). Multivariate analysis identified low NLR at baseline as an independent predictor of grade over 3 irAEs (p=0.028).

Discussion:
The incidence of irAEs at our hospital was higher than previous clinical trials. Adrenal insufficiency was particularly frequent, though many cases were detected early through routine blood monitoring. Low NLR at baseline may be a predictor of severe irAEs and is expected to help identifying high risk patients.

A-10-3 General Surgeon and Complex Disaster

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Introduction : The risk of large scale of artificial hazards/disasters are increasing as well as that of natural disasters even in the civilian area.The role of surgeon group is analyzed, maily focused upon against CBRNE Hazards or chemical, biological, radiological, nuclear and explosive hazards, etc.

Materials : East Japan Earthquake with Fukushima Nuclear Plant Disaster, Chernobyl Incident, Pandemic such as COVID-19 and Flu etc, Sarin Incidents in Tokyo and Matsumoto, September 11, New York, Hurricane Katorina, Turkey Earthquake and Indian Ocean Tsunami, etc.

Results : In order to operate effectively for surgical teams, three or triple layers/tiers systems/concepts should be considered or prepared. The details are as follows:

Top : Control systems or groups, i.e. national/local government, Emergen Medu\ical Service, Police, Fire, Military, NPO/NGOs,

Middle:Hazards to be treated :Chemical, Biological, Radiological/Nuclear, Explosive, Terroristic and Natural Hazards

Bottom : Group, to be relieved/supported from hazards : The weak citizen, Refugee, Discriminated people, Pets, Wild Animals or Wildlife, Nature

Conclusion : The way to protect against various hazards, especially against complex mega-disasters or hazards becomes often very difficult. The reasonal systemic planning should be established systematically from the viewpoint for surgeon team, for which hospital incident command and disaster medicine compendium should be also established.

A-10-4 Impact of Simulator-Based Training on Procedural Performance in Minimally Invasive Mitral Valve Plasty : Comparison with Initial Clinical Experience

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Objective:
Minimally invasive cardiac surgery (MICS) remains technically demanding, particularly for young cardiac surgeons. We developed a life-like MICS simulator and evaluated whether simulator-based training facilitates the introduction of minimally invasive mitral valve plasty (MVP).

Methods:
We compared procedural performance between simulator training and initial clinical MICS MVP cases. Suturing time of the mitral annulus and ligation time using a knot pusher were analyzed. Simulator data were obtained from three sessions, and clinical data were collected from five consecutive MICS MVP cases performed under standardized thoracoscopic conditions.

Results:
Annular suturing time was shorter in simulator training than in clinical cases. In contrast, ligation time was comparable between simulator and actual surgery. All ligations were completed successfully without loosening. Operative outcomes, including total operative time, cardiopulmonary bypass time, and aortic clamp time, were within acceptable ranges.

Conclusions:
Simulator-based training improves procedural proficiency and enables a smoother transition to clinical MICS MVP. The MICS simulator represents a practical and effective training tool for overcoming technical challenges in minimally invasive cardiac surgery.

A-10-5 Comparison of functional and oncological outcomes in robot-assisted radical prostatectomy using multiple robot-assisted systems

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Robot-assisted radical prostatectomy (RARP) is an established treatment option for localized prostate cancer (PCa). At our institution, RARP was introduced in August 2009, and a total of 1,850 cases have been performed as of early January 2024. In this study, we retrospectively evaluated and compared functional and oncological outcomes of RARP performed using five different robotic surgical systems (da Vinci Si, da Vinci Xi, da Vinci SP, hinotori, and Hugo RAS).The number of cases for each system was as follows: 1,722 cases with da Vinci (Si and Xi), 83 cases with hinotori (since September 2021), 37 cases with da Vinci SP (since April 2023), and 13 cases with Hugo RAS (since September 2023). Regarding operative time and console time, the da Vinci systems demonstrated the shortest durations among the four groups. In contrast, no significant differences were observed in positive surgical margin rates or perioperative complications among the groups. Further experience is required to fully exploit the characteristics of each robotic system.