The 63rd Annual Congress of the Japan Section

Yoshihisa Saida, M.D., Ph.D.
Department of Surgery,
Toho University Ohashi Medical Center
Welcome Message

Dear Colleagues,

On behalf of the organizing committee, it is our great pleasure to invite you to the 63rd Annual Congress of the Japan Section of the International College of Surgeons (ICS) to be held on Saturday June, 17, 2017 in Asakusa, Tokyo, Japan. Toho University organized the annual congress The Japan Section of ICS in 1999 by my mentor Prof. Sumiyama, and this is second opportunity for us. It is great honor for the Department of Surgery, Toho University Ohashi Medical Center organize the congress.

The annual congress of the Japan Section of ICS provides an opportunity to learn English presentation for young surgeons. As usual, two special English commentators will kindly comment and suggest how to be better in English presentation with comment sheet just after the each presentation.

June is one of the best seasons in Japan. And as you know Asakusa is the hottest town for sightseeing and attraction, including Historical Senso-Ji Temple and Tokyo Sky Tree, highest tower in Japan. Please enjoy sightseeing after hot medical discussion in English.

We look forward to welcoming numerous participants to this congress and to seeing our friends in Asakusa in June 2017.

Sincerely

Yoshihisa SAIDA, M.D., Ph.D., FICS
Congress Chairman
The International College of Surgeons
The 63rd Annual Congress of the Japan Section
Professor, Department of Surgery, Toho University Ohashi Medical Center
BOARD OF TRUSTEES OF ICS JAPAN SECTION July 01, 2015 ~ June 30, 2017
(as of June 17, 2017)

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KUWANO, Hiroyuki      Gunma University Graduate School of Medicine
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SAKAMOTO, Junichi    Tokai Central Hospital
HATASE, Tetsuro       Kurume General Hospital
SUGIYAMA, Toru        Iwate Medical University, School of Medicine
YAMAZAKI, Masato      Kawasaki Saiwai Hospital
TAKAYAMA, Tadatoshi   Nihon University School of Medicine
YAMAGUCHI, Akio       University of Fukui Faculty of Medicine Sciences
HARADA, Syunichi      Hanno-shi Higashiagano Medical Care Center
EGUCHI, Susumu       Nagasaki University Graduate School
MATSUBARA, Hisahiro  Chiba University Graduate School
OHTA, Tetsuo         Kanazawa University
YAMASHITA, Yuichi     Fukuoka University
IKEDA, Norihiko      Tokyo Medical University
TSUGAWA, Koichiro    St. Marianna University School of Medicine
NAGATA, Kensei       Kurume University
OKAMOTO, Aikou       The Jikei University

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YAMAGISHI, Hisakazu Kyoto Regional Medical Care Support Center

The 60th CONGRESS PRESIDENT (2014)
KUWANO, Hiroyuki Gunma University Graduate School of Medicine
The 61st CONGRESS PRESIDENT (2015)
YAMAMOTO, Masakazu Tokyo Women’s Medical University
The 62nd CONGRESS PRESIDENT (2016)
OTUJI, Eigo Kyoto Prefectural University of Medicine

* Past congress presidents and the details of annual congress are available on the Website of the International College of Surgeons Japan Section (http://www.ics-japan.org/).

The 63rd CONGRESS PRESIDENT (2017)
SAIDA, Yoshihisa Toho University Ohashi Medical Center
General Information

Date
June 17, 2017 (Sat)

Venue
ASAKUSA VIEW HOTEL
3-17-1 Nishiasakusa, Taito-ku, Tokyo, 111-8765, Japan
TEL: +81-3-3847-1111, FAX: +81-3-3842-2117

Congress President
Yoshihisa Saida, M.D., Ph.D., FICS
Professor, Department of Surgery, Toho University Ohashi Medical Center

Official Language
English

Name Badge
Please wear name badge at all times for all sessions

Congress Secretariat
Department of Surgery, Toho University Ohashi Medical Center
2-17-6 Ohashi, Meguro-ku, Tokyo, 153-8515, Japan
TEL: +81-3-3468-1251, FAX: +81-3-3469-8506
E-mail: icsj63admin@icsj-63congress.org
Home page: http://www.icsj-63congress.org

Registration
Registration Desk: Venue: Asakusa View Hotel 4F
Open Hours: 7:45 ~ 16:00
Registration Fee: 10,000 yen
Only Cash (Japanese Yen) is accepted/ Credit Cards are NOT available.

PC Desk
Venue: Asakusa View Hotel 4F
Open Hours: 7:30 ~ 16:00

Board Meeting 2017 (ICS Japan)
Scheduled on June 16, 2017 (Fri)
Venue: Asakusa View Hotel 4F, Room: Komagata
17:00 ~ 18:00 Executive Board Meeting
Information for Attendees

For Presenters of Free Paper Sessions
1) We recommend pre-registration of your presentation slide.
2) Allotted time: General speaker: 7 min. (5 min for presentation and 2 min for discussion and English comment), Speaker from oversea 12 min. (10 min for presentation and 2 min for discussion)
   Please make your presentation according to the English comment sheet.
3) Please be ready at “the seat for next speaker” in the session room at late 10 minutes prior to your presentation.
4) All presentations must be made in the form of a PC presentation.
5) PC desk is located at 3rd floor. Please check in at the PC desk to do a run-through earlier than 30 min, before your scheduled presentation time.
6) You are requested to operate the mouse at the podium by yourself.
7) Please specify at the PC desk if you have video images. We cannot handle audio output.
8) You are requested not to make changes to the data at the PC desk.

For Presenters bringing your data only (Not bringing your own PC)
1) Windows 10 and Power Point 2013 will be available for your presentation on site.
2) CD-ROM or USB memory stick can be accepted if data has been created with Windows.
3) Do not input any data except your presentation of the day on your media.
   Data created with Macintosh cannot be accepted. If you made your data by Macintosh, please bring your own PC.
5) Only standard fonts loaded in Power Point can be used.
6) Make sure to check with anti-virus software and have a preview by other PC in advance.
7) Upon preparing your data, check if it functions normally on the PC other than yours.
8) If you request to use video images by PC data, the data must be playable with Windows Media Player, Quick Time. (If there are video images in your presentation, we recommended you to bring your own PC.)

For presenters bringing your own PC
1) Please be sure to bring a power supply cable.
2) D-sub 15 pin (mini) is prepared as a cable connector for your presentation.
   Please prepare and bring the PC that connects well, and if you need a connecting converter, please bring your own.
3) After checking in at the PC desk, you are required to bring your own PC to the PC operator’s desk (next to the speaker’s podium) 3 presentations before yours. Please open up the presentation file in advance. We cannot keep your PC prior to 3 presentations before yours.
4) Please receive your PC at the PC operator’s desk immediately after your presentation.

Instruction for Chairpersons
1) Please come over the Registration Desk for Chairpersons earlier than 30 min, before your session in charge.
2) Please keep the time for the presentation and discussion to ensure smooth proceeding.
English Presentation Comment Sheet

Presentation No. ________

**English text (abstract and slides)**
- Use correct spelling
- Use correct grammar
- Use definite and indefinite articles (“the”, “a”) correctly
- Use English tenses correctly
- Use short, simple sentences
- Use correct spacing
- Use only single-byte characters (半角文字)

**Slides**
- Increase the size of the text
- Do not make your slides too busy, but keep them simple
- Limit the amount of text per slide
- Limit the number of graphics (tables or figures) to 1 per slide
- Limit the number of slides (max. 2 slides per minute)
- Do not skip slides (delete slides that will not be used)
- Do not include patients’ initials or other personal information

**Delivery**
- Speak louder
- Speak slower
- Speak faster
- Articulate more clearly
- Try using English intonation and avoid monotonous pronunciation
- Do not use any Japanese (e.g. ええと)
- Speak into the microphone
- Avoid reading the text of your slides
- Do not look down at your notes or PC too much
- Do not face the screen too much
- Face the audience and make eye contact
- Do not overuse the laser pointer
- Hold the laser pointer steady (it is a “pointer”, not a “circler”)
- Use only real English terms (no 和製英語)
- Use the English pronunciation of terms (not pronunciation based on German or French)

**Q&A**
- If you do not understand the question, ask for repetition
- If do not know the answer, do not keep silent but clearly state that you do not know

**Additional comments:**

<table>
<thead>
<tr>
<th>Total Score</th>
<th>A: excellent</th>
<th>B: good</th>
<th>C: average</th>
<th>D: keep practicing</th>
</tr>
</thead>
</table>

Thank you for participating in this session. Keep practicing your English presentation skills, and do participate again next year. Please enjoy Asakusa Town after the conference!

63rd ICS Japan Section
The International College of Surgeons
The 63rd Annual Congress of the Japan Section

会場のご案内 浅草ビューホテル 4F

学会本部 3F 清州

交通案内図
電車またはバスでお越しの方

飛行機で来られる方

お車でお越しの方
<table>
<thead>
<tr>
<th>Time</th>
<th>Room A</th>
<th>Room B</th>
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<tbody>
<tr>
<td>8:00</td>
<td>8:00~8:05 Opening Remarks: Yoshihisa Saida</td>
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<tr>
<td>8:05</td>
<td>Morning Seminar</td>
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<td></td>
<td>Yusuke Watanabe</td>
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<td></td>
<td>Chairperson: Masakazu Yamamoto</td>
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<tr>
<td>9:00</td>
<td>9:00~9:45 A1 (Colorectal 1)</td>
<td>9:00~9:40 B1 (HBP 1: Liver 1)</td>
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<td>Chairpersons: Masafumi Inomata</td>
<td>Chairpersons: Susumu Eguchi</td>
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<td>Akiyoshi Kanazawa</td>
<td>Satoshi Katagiri</td>
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<td>10:00</td>
<td>9:45~10:25 A2 (Colorectal 2)</td>
<td>9:40~10:20 B2 (HBP 2: Liver 2)</td>
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<td>Chairpersons: Kenji Katsumata</td>
<td>Chairpersons: Takehito Otsuko</td>
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<td>10:25</td>
<td>10:25~11:10 A3 (Colorectal 3)</td>
<td>10:20~11:05 B3 (HBP 3:Liver 3)</td>
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<td>Chairpersons: Koutarou Maeda</td>
<td>Chairpersons: Mureo Kasahara</td>
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<td>Tao-Wei, David, Ke</td>
<td>Adam Bartlett</td>
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<td>11:00</td>
<td>11:10~11:50 A4 (Oral and Maxillofacial 1)</td>
<td>11:05~11:45 B4 (HBP 4: Pancreas 1)</td>
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<td>Chairpersons: Junji Sekine</td>
<td>Chairpersons: Masato Yamazaki</td>
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<td>11:50</td>
<td>11:50~12:10 General Assembly</td>
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<td>12:00</td>
<td>12:10~13:10 Luncheon Seminar</td>
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<td>Tetsuo Ishizaki, Shunichi Arizumi</td>
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<td>Chairpersons: Akihiko Tsuchida</td>
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<td>13:00</td>
<td>13:10~13:50 Special Lecture</td>
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<td>Ken Takasaki, Eigo Otsuji</td>
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<td>Chairpersons: Masakazu Yamamoto</td>
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<td>14:00</td>
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<td>13:50~14:35 B5 (HBP 5: Pancreas 2)</td>
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<td>Chairpersons: Shin Nakahira</td>
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<td>Chang Moo Kang</td>
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<td>14:45</td>
<td>14:45~15:15 A5 (Oral and Maxillofacial 2)</td>
<td>14:35~15:20 B6 (HBP 6: Pancreas 3)</td>
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<td>Chairpersons: Hideki Sekiya</td>
<td>Chairpersons: Yuichi Nagakawa</td>
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<td>Masaki Karino</td>
<td>Dario Gherardi</td>
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<td>15:15</td>
<td>15:15~16:05 A6 (Chest: Lung, Esophagus, Breast)</td>
<td>15:20~16:00 B7 (HBP 7:Pancreas 4)</td>
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<td>Chairpersons: Kenichi Sakurai</td>
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<td>Takaharu Kiribayashi</td>
<td>Hiroki Sunagawa</td>
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<td>16:00</td>
<td>16:05~16:50 A7 (Stomach 1)</td>
<td>16:00~16:45 B8 (HBP 8: Biliary)</td>
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<td>Chairpersons: Hideaki Shimada</td>
<td>Chairpersons: Goro Honda</td>
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<td>Hyu-Joon Lee</td>
<td>Takeshi Aoki</td>
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<td>17:00</td>
<td>16:50~17:30 A8 (Stomach 2)</td>
<td>16:45~17:30 B9 (Miscellaneous)</td>
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<td>Chairpersons: Koji Otsuka</td>
<td>Chairpersons: Masaru Tsuchiya</td>
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<td>Atsushi Shizuki</td>
<td>Yoshihito Koter</td>
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<td>17:30</td>
<td>17:30~17:35 Closing Remarks: Yoshihisa Saida</td>
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Program June 17, 2017 (Sat)  Room A

English Commentator: Clive Langham (Nihon University School of Dentistry)

8:00: Opening Remarks
Yoshihisa Saida (Department of Surgery, Toho University Ohashi Medical Center)

8:05～9:00: Morning Seminar
Chairperson: Masakazu Yamamoto (Department of Surgery, Institute of Gastroenterology, Tokyo Women’s Medical University)
Sponsored by コヴィディエン ジャパン 株式会社

Yusuke Watanabe, M.D., Ph.D.
Senior Head Surgeon
Department of General Surgery, Teine Kejinakai Medical Center
Department of Gastroenterological Surgery II, Hokkaido University Graduate School of Medicine

9:00～9:45: A1 (Colorectal 1)
Chairperson:
Masafumi Inomata (Department of Gastroenterological and Pediatric Surgery, Oita University Faculty of Medicine)
Akiyoshi Kanazawa (Department of Surgery, Simane Prefectural Central Hospital)

A1-1: A case report of colorectal cancer with invasive Klebsiella Pneumoniae liver abscess syndrome
Mitsunori Ushigome
Department of Gastroenterological Surgery, Toho University Omori Medical Center

A1-2: Modified ERAS protocol in colon cancer surgery for gaining better fast-track surgery
Kazuya Yamaguchi
Department of Gastroenterological Surgery, Yokohama city university

A1-3: Ruptured aneurysm of the right internal pudendal artery associated with Neurofibromatosis type I
Takamaru Koda
Department of Gastroenterological Surgery, Toho University Omori Medical Center

A1-4: Comparative study of reduced-port surgery and conventional laparoscopic appendectomy after conservative treatment of acute appendicitis
Hiroyuki Negishi
Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine

A1-5: Primary adenocarcinoma of the appendix: retrospective evaluation of 10 cases in our institution
Kazunori Okubo
Department of Gastroenterological Surgery, Toho University Omori Medical Center
A1-6: Successful anesthetic management of five colorectal cancer patients with severe pulmonary impairment using combined spinal-epidural anesthesia for colorectal cancer.
Hiroshi Kuwabara
Department of Gastrointestinal and Pediatric Surgery, Tokyo Medical University

9:45 ~ 10:25: A2 (Colorectal 2)
Chairperson:
Kenji Katsumata (Department of Gastrointestinal and Pediatric Surgery, Tokyo Medical University)
Kimihiko Funahashi (Department of Surgery, Division of General and Gastroenterological Surgery, Toho University Omori Medical Center)

A2-1: Evaluation of clinical outcomes after palliative stoma creation for unresectable malignant tumors
Yasuo Nagashima
Department of Gastroenterological Surgery, Toho University Omori Medical Center

A2-2: Evaluation of neoadjuvant chemotherapy without radiotherapy for locally advanced rectal cancer
Noriyuki Isohata
Department of Coloproctology, Fukushima Medical University Aizu Medical Center

A2-3: Short- and long-term outcomes of colorectal surgery for huge colorectal cancer
Shunsuke Fujita
Department of Gastroenterological and Pediatric Surgery, Oita University Faculty of Medicine

A2-4: Examination of the colorectal cancer marker using metabolomics from urine analysis
Tetsushi Nakajima
Department of Gastrointestinal Surgery and Pediatric Surgery, Tokyo Medical University

A2-5: Outcomes of surgery for fecal incontinence
Kohei Hatta
Department of Surgery, Fujita Health University

A2-6: A case of laparoscopic colorectal cancer resection associated with congenital XI factor deficiency
Hiroka Kondo
Department of Gastroenterological Surgery, Saitama Medical University, International medical center

10:25 ~ 11:10: A3 (Colorectal 3)
Chairperson:
Koutarou Maeda (International Medical Center, Fujita Health University Hospital)
Tao-Wei, David, Ke (Colorectal Surgery Department, China Medical University Hospital, Taichung, Taiwan)

A3-1: Management of colorectal anastomosis leakage
Tao-Wei, David, Ke
Colorectal Surgery Department, China Medical University Hospital, Taichung, Taiwan
A3-2: Detailed stratification of pMP colorectal cancers based on the scoring of poor prognostic factors
Koji Komori
Department of Gastroenterological Surgery, Aichi Cancer Center Hospital

A3-3: Standardization of laparoscopic surgery for right transverse colon cancer
Daisuke Yamamoto
Department of Gastroenterological Surgery Ishikawa Prefectural Central Hospital

A3-4: Preoperative m-FOLFOX 6 treatment of locally advanced colorectal cancer invading the urinary bladder
Satoru Kagami
Department of Gastroenterological Surgery, Toho University Omori Medical Center

A3-5: Experience of laparoscopic peritoneal lavage for rectal anastomotic leakage
Dai Fukushima
Department of Gastroenterological Surgery, Ishikawa Prefectural Central Hospital

11:10〜11:50: A4 (Oral and Maxillofacial 1)
Chairperson:
Joji Sekine (Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine)
Aya Yoshino (Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine)

A4-1: Intraoperative indocyanine green fluorescence imaging for evaluation of blood supply in local flaps for reconstruction in oral cancer
Masaaki Karino
Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine

A4-2: Orbital apex syndrome on the normal side postoperatively in a patient with multiple facial fractures
Masaaki Karino
Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine

A4-3: Dedifferentiated adenoid cystic carcinoma of the palate: a case report
Yoshiki Nariai
Department of Oral and Maxillofacial Surgery, Matsue City Hospital

A4-4: Oral rehabilitation with gap formation and dental implants in a patient with ankylosis of the temporomandibular joint
Koji Tsunematsu
Department of Oral and Maxillofacial Surgery, Japanese Red Cross Society Masuda Medical Center

A4-5: Clinical features and modes of treatment of mandibular fractures at the Department of Oral and Maxillofacial Surgery, Shimane University Hospital
Hiroto Tatsumi
Department of Oral and Maxillofacial Surgery, Oki Regional Hospital
11:50〜12:10: General Assembly

12:10〜13:10: Luncheon seminar
Chairperson: Akihiko Tsuchida (Department of Gastrointestinal and Pediatric Surgery, Tokyo Medical University)
Sponsored by ジョンソン・エンド・ジョンソン 株式会社
Ishizaki Tetsuo (Department of Gastrointestinal and Pediatric Surgery, Tokyo Medical University)
Shunichi Ariizumi (Department of Surgery, Institute of Gastroenterology, Tokyo Women’s Medical University)

13:10〜13:50: Special Lecture
Chairperson: Masakazu Yamamoto (Department of Surgery, Institute of Gastroenterology, Tokyo Women’s Medical University)
Ken Takasaki (Department of Surgery, Institute of Gastroenterology, Tokyo Women’s Medical University)
Eigo Otsuji (Department of Surgery, Division of Digestive Surgery, Kyoto Prefectural University of Medicine)

14:45〜15:15: A5 (Oral and Maxillofacial 2)
Chairperson:
Hideki Sekiya (Department of Oral and Maxillofacial Surgery, Toho University Omori Medical Center)
Masaaki Karino (Department of Oral and Maxillofacial Surgery, Simane University Faculty of Medicine)

A5-1: Applicability of buccal fat pad grafting for oral reconstruction
Aya Yoshino
Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine

A5-2: Feasibility of a novel non-sutured open healing after sublingual extirpation for ranula
Aya Yoshino
Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine

A5-3: Use of an intraoperative navigation system for retrieving a broken dental instrument in the mandible: a case report
Masanori Masui
Division of Oral and Maxillofacial Surgery, Kagawa Prefectural Central Hospital

A5-4: Complications of a poly-L-lactic acid and polyglycolic acid osteosynthesis device for internal fixation in maxillofacial surgery
Shintaro Sukegawa
Division of Oral and Maxillofacial Surgery, Kagawa Prefectural Central Hospital

15:15〜16:05: A6 (Chest: Lung, Esophagus, Breast)
Chairperson:
Kenichi Sakurai (Division of Breast and Endocrine Surgery, Department of Surgery, Nihon University School of Medicine)
Takaharu Kiribayashi (Department of Surgery, Toho University Ohashi Medical Center)

A6-1: Evaluation of total thoracoscopic extended thymectomy for thymoma complicated myasthenia gravis
Takaharu Kiribayashi
Department of Surgery, Toho University Ohashi Medical Center

A6-2: Carcinosarcoma of the esophagus presenting as esophageal stenosis
Tadashi Highchi
Department of Surgery, Toho University Ohashi Medical Center

A6-3: Impact of postoperative infectious complications on long-term survival after surgery for esophageal cancer
Hiroki Imaoka
Department of Gastrointestinal and Pediatric Surgery, Mie University Graduate School of Medicine

A6-4: A case of breast cancer accompanied by a phyllodes tumor on the ipsilateral breast
Keita Adachi
Division of Breast and Endocrine Surgery, Department of Surgery, Nihon University School of Medicine

A6-5: Indoleamine 2,3-dioxygenase activity in intra-cystic breast tumors
Kenichi Sakurai
Division of Breast and Endocrine Surgery, Department of Surgery, Nihon University School of Medicine

A6-6: Breast cancer with micro invasion and lymph node metastasis diagnosed by microdochectomy: Repot of a case
Kenichi Sakurai
Division of Breast and Endocrine Surgery, Department of Surgery, Nihon University School of Medicine

16:05～16:50: A7 (Stomach 1)
Chairperson:
Hideaki Shimada (Department of Gastroenterological Surgery, Toho University Omori Medical Center)
Hyuk-Joon Lee (Department of Surgery and Cancer Research Institute, Seoul National University College of Medicine, Seoul, Korea)

A7-1: KLASS trial: laparoscopic gastrectomy for gastric cancer
Hyuk-Joon Lee
Department of Surgery and Cancer Research Institute, Seoul National University College of Medicine, Seoul, Korea

A7-2: Surgical technique for tracing and keeping appropriate ‘dissectable layer’ during infrapyloric lymphadenectomy in laparoscopic gastrectomy
Yusuke Fujii
Digestive and General Surgery, Shimane University Faculty of Medicine

A7-3: Difference of early post-gastrectomy syndrome in patients with gastric cancer according to surgical procedures
Tomohiro Osaki
Department of Surgery, Division of Surgical Oncology, Faculty of Medicine, Tottori University

A7-4: Venous invasion as a putative risk factor for recurrence following adjuvant chemotherapy in Stage III gastric cancer
Keiji Nishibeppu
Division of Digestive Surgery, Department of Surgery, Kyoto Prefectural University of Medicine

A7-5: The value of gastrectomy in gastric cancer patients with distant metastasis: comparison with gastrojejunal bypass
Daiki Matsubara
Division of Digestive Surgery, Department of Surgery, Kyoto Prefectural University of Medicine

16:50～17:30: A8 (Stomach 2)
Chairperson:
Koji Otsuka (Department of Gastrointestinal and General surgery, Showa University)
Atsushi Siozaki (Department of Surgery, Division of Digestive Surgery, Kyoto Prefectural University of Medicine)

A8-1: Clinical utility of ramucirumab for unresectable or metastatic gastric cancer: a single center experience
Tomoki Konishi
Department of Surgery, Division of Digestive Surgery, Kyoto Prefectural University of Medicine

A8-2: Resected gastric cancer complicated with Leriche syndrome
Taichi Mafune
Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine

A8-3: Value of PET-CT on Staging of Gastric Cancer
Toshiyuki Kosuga
Department of Surgery, Division of Digestive Surgery, Kyoto Prefectural University of Medicine

A8-4: Clinical utility of circulating cell-free Epstein–Barr virus DNA in patients with gastric cancer
Katsutoshi Shoda
Department of Surgery, Division of Digestive Surgery, Kyoto Prefectural University of Medicine

A8-5: Investigation of the indications for conservative therapy to treat perforated gastroduodenal ulcers
Kazuya Niwa
Department of Gastrointestinal and General Surgery, St. Marianna University School
17:30: Closing Remarks
Yoshihisa Saida (Department of Surgery, Toho University Ohashi Medical Center)

Program June 17, 2017 (Sat)  Room B

English Commentator: Raoul Breugelmans (Tokyo Medical University)

9:00～9:40: B1 (HBP 1: Liver 1)
Chairperson:
Susumu Eguchi (Department of Surgery, Nagasaki University Graduate School of Biomedical Sciences)
Satoshi Katagiri (Department of Surgery, Division of Gastroenterological Surgery, Tokyo Women’s University, Yachiyo Medical Center)

B1-1: The safe resection of liver parenchyma in laparoscopic surgery by CUSA with soft coagulation technique
Jun Yoshino
Department of Hepatobiliary and Pancreatic Surgery, Tokyo Medical and Dental University

B1-2: Laparoscopic left hemihepatectomy by dorsal approach
Manami Doi
Department of Surgery, Tokyo Metropolitan Cancer and Infectious Disease Center Komagome Hospital

B1-3: Successful resolution of a delayed bile leakage developed 14 months after major hepatectomy: a case report
Junji Maehara
Department of Hepato-Biliary-Pancreatic Surgery, Tochigi Cancer Center

B1-4: Spontaneous regression of hepatocellular carcinoma
Koji Nogaki
Department of Gastrointestinal and General surgery, Showa University

B1-5: A case of spontaneous rupture of liver hemangioma in a teenage boy
Mamoru Ishikawa
Department of Surgery, Ichinomiyanishi Hospital

9:40～10:20: B2 (HBP 2: Liver 2)
Chairperson:
Takehito Otsubo (Department of Surgery, St. Marianna University School of Medicine)
Yuichiro Otsuka (Department of Gastroenterological Surgery, Toho University Omori Medical Center)

B2-1: Precise and accurate laparoscopic hepatectomy in a non-bloody surgical area
Shin Nakahira
Department of Surgery, Sakai City Medical Center
B2-2: Safely expanding of the laparoscopic liver resection according to difficulty scoring system
Daisuke Ban
Department of Hepatobiliary and Pancreatic Surgery, Tokyo Medical and Dental University

B2-3: Pringle maneuver is an effective method for laparoscopic liver resection
Hirofumi Shirakawa
Department of Surgery, Tochigi Cancer Center

B2-4: Laparoscopic repeat hepatectomy for liver metastasis from rectal cancer after open hepatectomy
Fumihiko Ando
Department of surgery, Nippon medical school Chiba Hokusoh Hospital

B2-5: Tips for the safe approach in laparoscopic liver resection of segment 7 and 8
Toshiro Ogura
Department of Hepatobiliary and Pancreatic Surgery, Tokyo Medical and Dental University

10:20〜11:05 B3 (HBP 3: Liver 3)
Chairperson:
Mureo Kasahara (Organ Transplantation Center, National Center for Child Health Development)
Adam Bartlett (New Zealand Liver Transplant Unit and Department of General Surgery, Auckland City Hospital, New Zealand)

B3-1: Curative treatment of hepatocellular carcinoma (HCC) - single centre prospective study comparing transplantation, resection and ablation
Adam Bartlett
New Zealand Liver Transplant Unit and Department of General Surgery, Auckland City Hospital, New Zealand

B3-2: Therapeutic options and outcomes of congenital extrahepatic portosystemic shunt
Soichi Narumoto
Organ Transplantation Center, National Center for Child Health Development

B3-3: Experience of living donor liver transplantation for polycystic liver disease—a case report
Hisako Aihara
Department of Surgery, Institute of Gastroenterology, Tokyo Women's Medical University

B3-4: Living donor liver transplantation for Wilson disease-associated acute liver failure
Yu Huang
Department of Surgery, Nagasaki University Graduate School of Biomedical Sciences

B3-5: The case of liver re-transplant surgery by using the middle colic artery for hepatic artery reconstruction
Satoshi Nemoto
Department of Gastroenterology Surgery, Tokyo Woman's Medical University
11:05～11:45: B4 (HBP 4: Pancreas 1)
Chairperson:
Masato Yamazaki (Department of Surgery, Kawasaki Saiwai Hospital, Kawasaki)
Takanori Morikawa (Department of Surgery, Tohoku University Graduate School of Medicine)

B4-1: A case of adult pancreatoblastoma with long-term survival
Yushi Kaisyakuji
Department of Gastroenterological and Pediatric Surgery, Oita University Faculty of Medicine

B4-2: A Case of total pancreatectomy for acinar cell carcinoma of the pancreas with intraductal growth
Kenta Katsumata
Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine

B4-3: Two cases of pancreaticoduodenal artery aneurysm resulting in acute retroperitoneal hemorrhage
Ryota Sakon
Department of Surgery, Kawasaki Saiwai Hospital, Kawasaki

B4-4: A case of acute superior mesenteric artery occlusion rescued with IVR
Yoshitsugu Tsukamoto
Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine

B4-5: A case of gallbladder bleeding associated with microscopic polyangitis
Daichi Kitaguchi
Department of Gastrointestinal and Hepato-Biliary-Pancreatic Surgery, Faculty of Medicine, University of Tsukuba

13:50～14:35: B5 (HBP 5: Pancreas 2)
Chairperson:
Shin Nakahira (Department of Surgery, Sakai City Medical Center)
Chang Moo Kang (Division of HBP Surgery, Department of Surgery, Yonsei University College of Medicine, Seoul, Korea)

B5-1: Laparoscopic and robotic central pancreatectomy
Chang Moo Kang
Division of HBP Surgery, Department of Surgery, Yonsei University College of Medicine, Seoul, Korea

B5-2: Clinical outcomes of 16 consecutive patients who underwent laparoscopic insulinoma resection: The usefulness of monitoring intraoperative blood insulin during laparoscopic pancreatectomy
Takashi Ono
Department of Gastrointestinal and Hepato-Biliary-Pancreatic Surgery, Nippon Medical School

B5-3: Outcome of laparoscopic distal pancreatectomy; comparison between spleen-preserving and en-bloc splenectomy.
Masahiro Iseki
Department of Surgery, Tohoku University Graduate School of Medicine

B5-4: The original criteria of drain removal reduced postoperative complication after pancreatectomy
Hisashi Kosaka
Department of Surgery, Kansai Medical University

B5-5: Conversion surgery in initially unresectable pancreatic cancer in our facility
Chie Takishita
Department of Gastrointestinal and Pediatric Surgery, Tokyo Medical University

14:35～15:20: B6 (HBP 6: Pancreas 3)
Chairperson:
Yuichi Nagakawa (Department of Gastrointestinal and Pediatric Surgery, Tokyo Medical University)
Dario Gherardi (Department of Surgery, Centre Hospitalier Wallonie Picarde, Tournai, Belgium)

B6-1: Well differentiated neuroendocrine tumors of the pancreas: is there a place for laparoscopic resection in multidisciplinary approach even in case of metastatic disease?
Dario Gherardi
Department of Surgery, Centre Hospitalier Wallonie Picarde, Tournai, Belgium

B6-2: Clinical outcomes of distal pancreatectomy with en bloc celiac axis resection for locally advanced pancreatic cancer
Atsuhiko Ueda
Department of General Surgery, Graduate School of Medicine, Chiba University

B6-3: Significance of neoajuvant chemotherapy in podoplanin-positive cancer associated fibroblast in pancreatic cancer stroma
Tomoharu Miyashita
Department of Gastroenterological Surgery, Kanazawa University Hospital

B6-4: Platelet-lymphocyte ratio in advanced pancreatic ductal carcinoma
Masahiko Kawaguchi
Department of Surgery, Yokohama Sakae Kyosai Hospital

B6-5: Prognostic impact of histological heterogeneity in pancreatic cancer
Katsutoshi Shoda
Division of Digestive Surgery, Department of Surgery, Kyoto Prefectural University of Medicine

15:20～16:00: B7 (HBP 7: Pancreas 4)
Chairperson:
Yoshiharu Nakamura (Department of Gastrointestinal and Hepato-Biliary-Pancreatic Surgery, Nippon Medical School)
Hiroki Sunagawa (Department of Surgery, St Luke’s International Hospital)
B7-1: Usefulness of positron emission tomography for intraductal papillary mucinous neoplasms
Kunihiro Saga
Department of Gastroenterological and Pediatric Surgery, Oita University Faculty of Medicine

B7-2: Validation of guideline and evaluation of operative outcome in intraductal papillary mucinous neoplasm of pancreas
Takayuki Miyoshi
Department of Surgery, Nagasaki University Graduate School of Biomedical Sciences

B7-3: Analysis of long term survival of pancreatic cancer at our hospital
Mamiko Miyashita
Department of Surgery, Tokyo Metropolitan Tama Medical Center

B7-4: Difficulties in the surgical management of chronic pancreatitis after choledochojejunostomy for a bile duct stricture: A case report
Masato Yamazaki
Department of Surgery, Institute of Gastroenterology, Kawasaki Saiwai Hospital

B7-5: Reconstructive gastric tube-preserving, radical pancreaticoduodenectomy for IPMN after esophagectomy: Report of a case
Rei Okada
Department of Gastroenterological Surgery, Toho University Omori Medical Center

16:00～16:45: B8 (HBP 8: Biliary)
Chairperson:
Goro Honda (Department of Surgery, Tokyo Metropolitan Cancer and Infectious Disease Center Komagome Hospital)
Takeshi Aoki (Department of Gastrointestinal and General surgery, Showa University)

B8-1: Laparoscopic resection of the extrahepatic bile duct for congenital biliary dilatation
Tatsuyuki Takadate
Department of Surgery, Tohoku University Graduate School of Medicine

B8-2: Clinical outcome of consecutive adult patients with choledochal cysts managed by laparoscopic resection and Roux-en-Y hepaticojejunostomy
Takahiro Haruna
Department of Gastrointestinal and Hepato-Biliary-Pancreatic Surgery, Nippon Medical School

B8-3: The analysis of resected cases of masquerading cholangiocarcinoma
Masahiro Shiihara
Department of Surgery, Institute of Gastroenterology, Tokyo Women's Medical University

B8-4: Weekly palliative chemotherapy with low-dose paclitaxel for recurrent and unresectable biliary tract cancer
Hidehiro Tajima
Departments of Gastroenterological Surgery, Graduate School of Medical Science, Kanazawa
B8-5: A case of gallbladder volvulus difficult to treat by laparoscopic-surgery in which preoperative drainage for concurrent giant-hydronephrosis enabled surgery to be performed safely
Yuki Tomizawa
Department of Surgery, Kawasaki Saiwai Hospital

B8-6: A case of initially unresectable perihilar cholangiocarcinoma at diagnosis who could undergo radical surgery after chemotherapy
Keisuke Yokoyama
Department of Gastroenterological surgery II, Hokkaido University Graduate school of Medicine

16:45～17:30: B9 (Miscellaneous)
Chairperson:
Masaru Tsuchiya (Department of Gastroenterological Surgery, Toho University Omori Medical Center)
Yoshihito Kotera (Department of Surgery, Institute of Gastroenterology, Tokyo Women’s Medical University)

B9-1: Negative pressure wound therapy for the wound of stoma closure with purse string suture—Efficiency for VAC system—
Koji Masumori
Department of Surgery, Fujita Health University

B9-2: Effectiveness of NPWT for surgical wound of digestive surgery to prevent SSI
Koichiro Kojima
Department of Surgery, School of Medicine, Kyorin University

B9-3: Study of adult postoperative inguinal hernia pain caused by surgical procedures
Yasuhito Hisatsune
Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine

B9-4: The procedure for prevention of recurrence in TAPP
Minoru Imai
Department of Surgery, Mimihara General Hospital

B9-5: Short-term outcome of the transabdominal preperitoneal approach for inguinal hernia; a single-centered experience
Michio Okamoto
Department of Surgery, Shimane prefectural Central Hospital

B9-6: Compensatory sweating after endoscopic thoracic sympathectomy of T3 and T4 for palmar hyperhidrosis
Michiko Kitagawa
Minimally Invasive Surgery Center, Yotsuya Medical Cube

B9-7: Initial experience of robotic-assisted partial nephrectomy(RAPN)
Yota Nakajima
Department of Urology, Toho University Omori Medical Center
Speakers from overseas
Tao-Wei, David, Ke, M.D., Ph.D.
Colorectal Surgery Department, China Medical University Hospital, Taichung, Taiwan

Education:
EMBA, National Chiao Tung University, Hsinchu, Taiwan (2014-2016)
Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan (2009-2015)
Graduate Institute of Integrated Medicine, China Medical University, Taichung, Taiwan (2006-2008).
China Medical University, Taichung, Taiwan (1992-1999).

Residency:
Chief, Colorectal Surgery Department
China Medical University Hospital, Taichung, Taiwan

Staff Surgeon, Colorectal Surgery
China Medical University Hospital, Taichung, Taiwan

Director, Colorectal Surgical Unit
China Medical University Hospital, Taichung, Taiwan

Staff Surgeon, Colorectal Surgery
Chang-Hua Christian Hospital, Chang-Hua, Taiwan

Clinical Fellow, Colorectal Surgery
Chang-Hua Christian Hospital, Chang-Hua, Taiwan

Chief Resident, Department of Surgery
Chang-Hua Christian Hospital, Chang-Hua, Taiwan

Resident, Department of Surgery
Chang-Hua Christian Hospital, Chang-Hua, Taiwan

Research:
Minimal Invasive Surgery in colorectal disease
Anal surgery

Selected Publications:


Hyuk-Joon Lee, M.D., Ph.D.
Department of Surgery and Cancer Research Institute, Seoul National University College of Medicine, Seoul, Korea

EDUCATION & TRAINING:
M.D. (1996) Seoul National University College of Medicine, Seoul, Korea
Ph.D. (2006) Graduate School, Department of Surgery, Seoul National University College of Medicine
1997.03-2001.02: Resident, Department of Surgery, Seoul National University Hospital
2001.03-2003.02: Fellow, Department of Surgery, Seoul National University Hospital

ACADEMIC APPOINTMENTS:
2003.03-2004.07: Clinical Professor, Department of Surgery, Seoul National University Hospital, Seoul
2004.08-2007.03: Instructor (full-time), Department of Surgery, Seoul National University
2007.07-2009.02: Visiting researcher in Department of Surgery, Vanderbilt University School of Medicine, Nashville, TN, USA
2007.04-2012.02: Assistant Professor, Department of Surgery & Cancer Research Institute, Seoul National University College of Medicine, Seoul, Korea
2012.03-present: Associate Professor, Department of Surgery & Cancer Research Institute, Seoul National University College of Medicine, Seoul, Korea
2016.08-present Division chief, Gastrointestinal Division, Department of Surgery, Seoul National University Hospital, Seoul, Korea

SCIENTIFIC SOCIETIES:
International Gastric Cancer Association (IGCA), Secretary of Scientific Committee of 9th IGCC
Korean Gastric Cancer Association (KGCA), Secretary of Scientific Committee
Laparoscopic Gastrointestinal Surgery Study Group, KGCA, Steering Committee member
Korean Society of Gastroenterology, Vice Secretary General (2009~2011)
Korean Surgical Society, Vice Secretary General (2010~2012)
Korean Cancer Association, active member
Korean Society of Surgical Metabolism and Nutrition (KSSMN), Chair of Scientific Program Committee (2016~present), Chair of Clinical Trial/Guideline Committee (2012~2016)
Korean Society of Parenteral and Enteral Nutrition (KSPEN), Chair of Publication Committee (2012~present)
Korean Society of Metabolic and Bariatric Surgery (KSMBS), Chair of Textbook Publication Committee (2016~present), Chair of Information Committee (2013~2016)

AWARD:
2003 “Best Abstracts Award” at 11th UEGW (United European Gastroenterology Week: Madrid, Spain)
2010 “Distinct Poster Award” at DDW (Digestive Disease Week: New Orleans, USA)
2010 “Yeon-Gang Scientific Award” by Korean Surgical Society
2010 “Young Investigator Award” by Alumni of Department of Surgery, Seoul National University College of Medicine
2011 “Young Investigator Award” by Seoul National University College of Medicine & Seoul National University Hospital
SPECIALIZED FIELDS:
Surgical oncology, especially for gastric cancer
Laparoscopic & robotic gastric cancer surgery, NOTES
Gastric carcinogenesis & tumor biomarker study
Nutritional support for surgical cancer patients
Bariatric and metabolic surgery

Adam Bartlett, PhD, FRACS, MBChB, BHB
Associate Professor, New Zealand Liver Transplant Unit and Department of General Surgery, Auckland City Hospital, New Zealand

Position
02/03/2009 – current: Consultant surgeon in Liver Transplantation and Hepatopancreaticobiliary (HPB) Surgery, New Zealand Liver Transplant Unit and Department of General Surgery, Auckland City Hospital, Parl Road, Grafton, Auckland. Senior Lecture in Surgery, Department of Surgery, University of Auckland.

08/02/2009 - 14/02/2009: Visiting surgeon Division of Transplantation Surgery, Mayo Clinic, Rochester, Minnesota, USA. Contact Professor Charles Rosen.

08/12/2008 – 19/12/2008: Visiting surgeon, Department of Surgery, Centre Hepato-Biliare, Paul Brousse Hospital, Villejuif, France. Contact Professor Daniel Azoulay.

24/11/2008 – 05/12/2008: Visiting surgeon, Department of Hepatobiliary Pancreatic Surgery, University Hospital, Leuven, Belgium. Contact Professor Baki Topal.

01/11/2006 – 21/11/2008: Senior Surgical Fellow, Liver transplantation and hepatopancreaticobiliary Surgery, Institute of Liver studies, King’s College Hospital, London. Under the supervision of Professor Nigel Heaton.

12/12/2005 – 24/10/2006: Surgical Fellow to the New Zealand Liver Transplant Unit and Auckland Renal Transplant Group, Auckland City Hospital. Under the supervision of Professor Steven Munn, Professor John McCall, Mr. Peter Johnson, Mr. William Hecker and Mr. Motohiko Yasutomi.

Awards
2. Young Investigator Award, Transplantation Society of Australia and New Zealand (TSANZ), 21st annual scientific meeting, Canberra, Australia 9-11 April 2003.
3. Young Investigator Award, Transplantation Society of Australia and New Zealand (TSANZ), 19th annual scientific meeting, Canberra, Australia 4-6 April 2001.
4. Tyco Young Investigators Award, Surgical Research Society of Australasia annual scientific meeting, Adelaide, South Australia 10-11 August 2000.
5. Sir Carrick Robertson Prize in Surgery, University of Auckland, 1996.
6. Medlab Hamilton Prize for general excellence in clinical medicine, University of Auckland, 1996.
Chang Moo Kang, M.D., Ph.D.

Associate Professor
Division of Hepatobiliary and Pancreatic surgery,
Department of Surgery,
Yonsei University College of Medicine, Seoul, Korea

Pancreatobiliary Cancer Clinic, Yonsei Cancer Center,
Severance Hospital, Seoul, Korea

1997:       Graduated Yonsei University College of Medicine, Seoul, Korea
1997-1998:  Internship in Yonsei University Health System, Seoul, Korea
1998-2002:  Resident ship of department of surgery, Yonsei University College of medicine
( Yonsei University Health System)
2002-2005:  Mandatory military service as army surgeon
2005-2006:  Fellow ship of division of hepatobiliary and pancreatic surgery, department of surgery,
Yonsei University College of medicine
2006-2007:  Instructor of surgery, division of hepatobiliary and pancreatic surgery, department of surgery,
Yonsei University College of medicine
2007-2015.2: Assistant professor, Department of hepatobiliary and pancreatic surgery, Department of Surgery,
Yonsei University College of medicine
2011.8 -2012.8 Clinical and Research Fellowship in Division of Surgical Oncology, UCSD Moores Cancer Center, San Diego, USA
2015.3- Associate professor, Department of hepatobiliary and pancreatic surgery, Department of Surgery,
Yonsei University College of medicine

Major Research field:
Pancreatic cancer surgery
Minimally invasive (robotic & laparoscopic) pancreatic surgery
RON receptor tyrosine kinase in pancreatic cancer carcinogenesis
Tumor glucose metabolism-based cancer treatment: targeting cancer microenvironment and therapeutic diet

Live Demonstration
- Robotic spleen-preserving distal pancreatectomy 2010-07-15, Yonsei Robotic Surgery Live, Korea
- Robotic central pancreatectomy 2013-09-05, IAP & KPBA, Korea
- Robotic single site cholecystectomy 2013-10-21, Yonsei Robotic Surgery Live, Korea
- Laparoscopic distal pancreatectosplenectomy 2014-09-18, 6th Japan-Mongolia International Symposium in GI tract cancer, Mongolia
- Laparoscopic pancreaticojunostomy (duct-to-mucosa)-Unedited video 2014-08-29 Korea-Japan collaborative international symposium, Korea
- Robotic single site cholecystectomy- Yonsei Robotic Surgery Live 2014
- Robotic single site cholecystectomy-Yonsei Robotic Surgery Live 2015 [Unedited video]
Dario Gherardi  
Department of Surgery, Centre Hospitalier Wallonie Picarde, Tournai, Belgium

**Work Experience**

28/09/2008-30/09/2015: Assistant Physician  
St Luc University, Brussels, Belgium  
01/10/2015-Present: Consultant in General Surgery  
Centre Hospitalier Wallonie Picarde (CHWAPI), Tournai, Belgium

**Education and Training**

He graduated in Medicine, with full marks, at the State University of Milano, Italy, on July 31, 2008.

He attended as an Intern Medical Student the Ward of General Surgery, Head Prof. Marco Montorsi, at the Instituto Clinico Humanitas, Milano, starting from October 2005 until October 2008. During that time he was engaged in the activity of the European School of Intraoperative ultrasound (ESSU) directed by Prof. Guido Torzilli and attended the course on focused assessment for trauma (FAST).

He was awarded an elective course at the King’s College Hospital in London, UK, Supervisor Dr. Paolo Muiesan, from March 1st to 30th 2008.

In may 2008 he attended the 4th International Meeting on Transplant from Non-Heart-Beating Donors and presented an oral communication.

He passed the State Qualifying Examination for medical practice in Italy on February 2nd, 2009.

He passed with full marks the admission exam for training in General Surgery at the Catholic University of Louvain (UCL) on may 7th 2009.

**Surgical Training**

28/09/2009-30/09/2011: Assistant Physician (resident in General Surgery) in Department of General Surgery, Head Dr Philippe Hauters, at the Norte Dame Hospital in Tournai, Belgium  
03/10/2011-28/09/2013: Assistant Physician (resident in General Surgery) in Department of General Surgery, Head Dr Jean-Paul Haxhe, at the St Pierre Hospital in Ottignies, Belgium  
03/10/2013-30/09/2014: Assistant Physician in Department of General Surgery, Head Prof. Jan Lerut, at the Cliniques Universitaires Sanit Luc in Brussels, Belgium  
06/10/2014-30/09/2015: Specialty registrar in the Liver Unit, Head John Isaac, at the Queen Elizabeth, Birmingham, UK

**Main scientific and professional interests**
Liver, biliary tract and pancreatic surgery, Minimally invasive surgery, Diagnostic and interventional ultrasound of the digestive tract

Abstract
A1-1: A case report of colorectal cancer with invasive Klebsiella Pneumoniae liver abscess syndrome
Mitsunori Ushigome1, Takayuki Suzuki1, Hiroyuki Shiokawa1, Satoru Kagami1, Takamaru Koda1, Akiharu Kurihara1, Junishi Koike1, Naobumi Tochigi2, Yoshiki Akasaka2, Tetsuo Nemoto2, Hideaki Shimada1, Kimihiko Funahashi1, Hironori Kaneko1
1) Department of Gastroenterological Surgery, Toho University Omori Medical Center
2) Department of Pathology, Toho University Omori Medical Center

Introduction: Recently, a hypermucoviscous Klebsiella pneumoniae (KP) infection called invasive KP liver abscess syndrome (IKPLAS) has been reported; it is defined by a liver abscess with contemporaneous metastatic KP infections at other body sites such as the lung or the urinary tract system.

Methods: Our case was a 57-year-old Japanese man who was admitted to our hospital with the diagnosis of rupture of the eyeball; he had a sudden drop in visual acuity of the right eye three days after he developed frequent urination and diarrhea. Blood tests revealed a white blood cell count of 31600/mm3, an albumin level of 2.7 g/dL, a C-reactive protein level of 14.2 mg/dL and an HbA1c of 6.4%. KP was detected from the abscess cavity of the excised eyeball and from urine specimens. Whole-body computed tomography (CT) revealed liver abscesses (>50 mm). An advanced colon cancer with lung metastasis was discovered (Rs: cT3N1M1). Tumor markers revealed the following: CEA, 4.6 ng/mL; CA, 19-90.8 U/mL; and p53 antibody, <0.4 U/mL. After antibiotic therapy using MEPM and LVFX, resection of the primary tumor and lung metastases were performed to obtain R0. (Pathological findings: Tub2>muc, T3 N1(1/16), and lung metastasis of colorectal cancer.)

Results: The detected bacteria were KP of the mucoid type; therefore, this was considered to be a case of colorectal cancer presenting with IKPLAS that was discovered as a result of an ocular infection.

Conclusion: We report a rare case of IKPLAS. Caution is required for KP infection with multiple organ abscesses.

A1-2: Modified ERAS protocol in colon cancer surgery for gaining better fast-track surgery
Kazuya Yamaguchi1, Masashi Momiyama1, Yusuke Suwa1, Kazuya Nakagawa2, Hirokazu Suwa2, Jun Watanabe3, Atushi Ishibe1, Kazuteru Watanabe4, Mituyoshi Ota2, Itaru Endo1
1) Department of Gastroenterological Surgery, Yokohama city university
2) Department of Gastroenterological Surgery, Yokohama city university medical center
3) Department of Surgery, Yokosuka Kyosai hospital
4) Department of Surgery, NTT Medical Center Tokyo
5) Department of Oncology, Yokohama city university

Background: To achieve “fast-track surgery (FTS)”, we have applied enhanced recovery after surgery (ERAS) to our patients undergoing colon cancer surgery since 2008. Furthermore, we modified our ERAS protocol to achieve ideal FTS at 2011. The modification included omission of luxate and fasting the day before surgery, reduction of intraoperative parenteral fluid volume, and earlier initiation of oral intake after surgery.

Aim: To clarify whether our modified ERAS protocol was useful for gaining better FTS in surgery for colon cancer.

Patients and methods: We compared clinical variables in propensity-score-matched cohort between before 1st era and after 2nd era modifying the protocol.

Results: During the study period between 2008 and 2016, 319 patients from 1st (2008-2010) and 319 from 2nd (2011-2016) were extracted using propensity-score-matching. First flatus and defecation after surgery were observed significantly earlier in 2nd era than in 1st era [flatus, 2.60d in 1st vs 1.93d in 2nd (p<0.05); defecation, 3.61d in 1st vs 3.07d in 2nd (p<0.05)]. Furthermore, length of stay significantly reduced from 10.8d in 1st to 10.5d in 2nd (p<0.05). Furthermore, incidence of postoperative complications did not differ among the 2 eras [16.3% in 1st vs 12.9% in 2nd (p=0.248)].

Conclusion: Our modified ERAS protocol was useful for gaining better FTS in colon cancer surgery.
A1-3: Ruptured aneurysm of the right internal pudendal artery associated with Neurofibromatosis type I
Takamaru Koda, Kimihiko Funahashi, Tetsu Kagami, Mistunori Ushigome, Hiroyuki Shiokawa, Akiharu Kurihara, Jyunichi Koike
Department of Gastroenterological Surgery, Toho University Omori Medical Center

Neurofibromatosis type I, or von Recklinghausen’s disease, is an autosomal disorder affecting one in 3000 individuals. Clinically, multiple skin tumors and spotty pigmentation are common symptoms. Sometimes von Recklinghausen’s disease involves the osseous and central nervous systems, and causes malignant tumors. Vascular involvement is rare and only occurs in 1-3% of patients, but may have catastrophic complications.

A 51-year-old female with von Recklinghausen’s disease presented with swelling of the right buttock. Computed tomography revealed a ruptured aneurysm of the right internal pudendal artery. The patient underwent endovascular embolization of the arterial aneurysm.

We present a brief review of the vascular manifestations of von Recklinghausen’s disease.

A1-4: Comparative study of reduced-port surgery and conventional laparoscopic appendectomy after conservative treatment of acute appendicitis
Hiroyuki Negishi1, Ryoji Makizumi1, Kenta Katsumata1, Yoshitsugu Tsukamoto1, Keisuke Ida1, Yuta Ogura1, Kazuya Niwa1, Asako Fukuoka1, Takayuki Asano1, Satoshi Tsukikawa1, Yukihito Kokuba2, Nobuyoshi Miyajima3, Takehito Otsubo1
1) Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine
2) Division of Gastroenterological and General Surgery, St. Marianna University, Yokohama City Seibu Hospital
3) Digestive Disease Center, St. Marianna University School of Medicine, Toyoko Hospital

Introduction: We performed a comparative analysis of reduced-port surgery (RPS) and conventional 3-port laparoscopic appendectomy (CA) after conservative treatment of acute appendicitis to clarify the usefulness of RPS.

Methods: Subjects were 40 patients who underwent CA and 21 patients who underwent RPS between January 2012 and December 2015. We obtained patient data retrospectively and compared age, sex, operation time, bleeding volume, postoperative complications, postoperative oral intake day, length of postoperative hospital stay, and postoperative use of analgesic drugs between the two groups.

Results: There was no significant difference between the CA group and RPS group in terms of sex, operation time, bleeding volume, postoperative oral intake day, length of postoperative hospital stay, and postoperative complications. However, statistically significant differences were found in average age (52.2 years in the CA group vs. 39.1 years in the RPS group; p<0.01), and in average use of postoperative analgesics (0.9 times in the CA group vs. 2.1 times in the RPS group; p<0.001).

Conclusion: At our institution, CA and RPS performed after conservative treatment of acute appendicitis provided equivalent surgical outcomes. These findings confirm the usefulness of RPS vs. CA. However RPS required more postoperative use of analgesics, which suggested the need for greater postoperative pain control following RPS.
A1-5: Primary adenocarcinoma of the appendix: retrospective evaluation of 10 cases in our institution
Department of General and Gastroenterological Surgery, Toho University Omori Medical Center

Introduction: Primary adenocarcinoma of the appendix is rare. Accurate diagnosis is difficult because of the nonspecific findings associated with the condition.

Method: We carried out a retrospective evaluation of patients who underwent an operation for appendiceal adenocarcinoma between May 1999 and December 2016.

Results: Ten patients including 3 men (median age, 69 years; range, 44 – 84 years) underwent the operation. The preoperative diagnosis was so difficult that we were able to diagnose only 2 patients as definitely having appendiceal adenocarcinoma. Although a curative resection was performed in 6 patients, peritoneal dissemination was found during surgery in the remaining 4 patients. The staging of the tumors were stage I in 4 patients, stage III in 2 patients, and stage IV in 4 patients. Eight of the 10 patients were treated with chemotherapy at the outpatient department following surgery. There was no recurrence in 5 patients, although 1 patient died of primary disease and recurrence occurred in 2 patients over a median follow-up period of 26 months (range, 2 – 79 months).

Conclusion: These results suggested that accurate diagnosis of an appendiceal adenocarcinoma was as difficult as expected.

A1-6: Successful anesthetic management of five colorectal cancer patients with severe pulmonary impairment using combined spinal-epidural anesthesia for colorectal cancer
Hiroshi Kuwabara, Yu Kuboyama, Takaaki Matsudo, Masatoshi Shigoka, Masanobu Enomoto, Tetsuo Ishizaki, Kenji Katsumata, and Akihiko Tsuchida
Department of Gastrointestinal and Pediatric Surgery, Tokyo Medical University

Performing surgery on the patients with severe pulmonary impairment may be problematic. This is because such patients sometimes require artificial respirator management owing to delayed awakening from anesthesia or postoperative pulmonary complications, resulting in extended hospitalization, which is a large psychological and financial burden. We herein report the surgical strategy in five patients with colorectal cancer who had a severe pulmonary disease, having sufficient clinical course without any complications after the surgery performed under combined spinal-epidural anesthesia (CSEA). The mean age of the patients was 82 years. The primary tumor locations were the ascending colon in two patients, transverse colon in one, sigmoid colon in one, and rectum in one. The preoperative diagnosis was Stage I in one patient, Stage II in one, and Stage IIIa in three. All patients were classified as ASA-PS grade III and abdominal surgery was performed under CSEA in consideration of their severe respiratory impairment and general condition. A right hemicolectomy was performed in two patients, a transverse colectomy in one, a sigmoid colectomy in one, and high anterior resection in one. The mean operation time was 107 min and median length of postoperative hospitalization was 15 days. During surgery, though one patient complained of nausea upon intestinal traction, respiratory and circulatory conditions in all patients were steady. The number of patients with severe pulmonary impairment is expected to increase with aging of the population and an increase in the number of colorectal cancer patients, and hence, CSEA is expected to become a useful anesthetic technique.
A2-1: Evaluation of clinical outcomes after palliative stoma creation for unresectable malignant tumors
Yasuo Nagashima, Kimihiko Funahashi, Takamaru Koda, Mitsunori Ushigome, Hiroyuki Shiokawa, Akiharu Kurihara, Jyunichi Koike, Hideaki Shimada, Hironori Kaneko
Department of Gastroenterological Surgery, Toho University Omori Medical Center

Introduction: Colonic stenting is popular as a palliative treatment for malignant bowel obstruction. A palliative stoma is often created as an alternative treatment for improving symptoms of bowel obstruction; however, its clinical significance remains unclear.

Methods: We retrospectively evaluated the clinical outcomes after palliative stoma creation for unresectable malignant tumors treated between January 2005 and December 2014.

Results: A palliative stoma was created for 68 patients (35 men, 33 women); there were 35 primary tumors and 33 recurrent tumors. The patients’ median age was 69.0 years (range, 26 – 91 years). For 39 of 68 patients (57%), a palliative stoma was created as an emergency. For most of the 68 patients (97%), surgery was performed with an open method. The median operative time and bleeding volume were 123.5 minutes (range, 16 - 463 minutes) and 31 ml (range, 0 – 1810 ml), respectively. There was no mortality. Postoperative surgery-related and stoma-related complications occurred in 25 patients (36.7%) and 12 patients (17.6%), respectively; severe surgery-related and stoma-related complications (≧ grade 3, Clavien-Dindo classification) occurred in 12 patients (17.6%) and one patient (1.5%), respectively. The median hospital stay after surgery was 29 days (range, 10 – 151 days). The median survival time after surgery was 130 days (range, 15 – 1515 days).

Conclusion: These results indicate that palliative stoma creation for unresectable malignant tumor is associated with high operative risk. Indications for a palliative stoma should be considered carefully.

A2-2: Evaluation of neoadjuvant chemotherapy (NAC) without radiotherapy for locally advanced rectal cancer
Noriyuki Isohata1), Shungo Endo1), Kensuke Kumamoto1), Daisuke Takayanagi1), Nobutoshi Soeta 2), Ikuro Oshibe2), Hajime Matsuida2), Tetsutaro Nemoto2), Takuro Saito2), Kazutomo Togashi1)
1) Department of Coloproctology, Fukushima Medical University Aizu Medical Center
2) Department of Surgery, Fukushima Medical University Aizu Medical Center

Introduction: We conducted neoadjuvant chemotherapy (NAC) without radiotherapy for locally advanced rectal cancer. We report the short-term outcome and problem of this therapy.

Methods: Eighteen patients performed NAC from November 2012 to November 2016 was enrolled. Regimen of NAC were mFOLFOX6 in 10, FOLFIRI in 1, XELOX in 6 and IRIS in 1 patients. We also used Bevacizumab (BV) in 13 and Panitumumab or Cetuximab in 5 patients.

Results: Patient demographics were female 4, male 14, Age 63 years (range 55-79), location (Rb 13, P 5). Simultaneous distant metastasis was recognized in 8 patients. Six patients underwent surgery of colostomy before induction of NAC. Nine patients had suffered adverse event more than grade3, however all patient finally could finish NAC. Clinical response by imaging were CR 1, PR 14, SD 3, PD 0, response rate 83.3% and reduction rate 42.5% (range 18.8-100%). Clinical response of distant metastasis were CR 2, PR 5 and SD 1. We performed laparoscopic surgery in 15 patients without invasion to adjacent organ. We performed LAR in 7, APR in 9, TPE in 1 and local resection in 1 patients. Pathological response was Grade 0 in 0, 1a in 7, 1b in 2, 2 in 5 and 3 in 2 patients. Eight patients had suffered complications of surgery, however all patients have been cured conservatively. Local recurrences were recognized in 3 patients.

Conclusion: NAC was performed safely and was relatively effective. For less effective cases, more intensive therapies (e.g. radiation, FOLFOXIRI) may be necessary.
**A2-3: Short- and long-term outcomes of colorectal surgery for huge colorectal cancer**
Shunsuke Fujita1, Kentaro Nakajima1, Takahiro Hiratsuka1, Tomonori Akagi1, Manabu Tojigamori1, Yoshitake Ueda2, Hidefumi Shirosita1, Tsuyoshi Etoh1, Norio Shiraishi2, Masafumi Inomata1

1) Department of Gastroenterological and Pediatric Surgery, Oita University Faculty of Medicine
2) Center for Community Medicine, Oita University Faculty of Medicine

**Introduction:** Huge colorectal cancer (CRC) presents expansive growth and invasiveness to adjacent organs. The aim of this study was to elucidate short-term and long-term outcomes of colorectal surgery for huge CRC.

**Methods:** Between 2006 and 2015, 535 patients of with pStage I-III were performed colorectal surgery in our institute. Among them, 56 patients with huge CRC (maximum tumor size ≥ 80mm) were retrospectively analyzed regarding to short- and long-term outcomes.

**Results:** There were 26 female and 30 male patients, with a mean age of 69 years. The mean diameter of the primary tumor was 97 mm (range, 80–140 mm). The tumor site was colon in 27 and rectum in 29. The clinical stages were 0 in 2 (4%), I in 1(2%), II in 18(34%), and III in 32 (60%). The median blood loss was 348ml (IQR, 252-431ml) and median duration of operation was 470min (IQR, 40-590min). En-bloc resection of adjacent organ was performed in 6 cases (bladder 4, uterus 2, intestine 1). Curative resection with negative resection margin was achieved in all cases. Overall postoperative complications were found in 8 (14%). Three-year overall survival rate was 92.3% in pStage II, and 64.0% in pStage III.

**Conclusion:** Colorectal surgery for huge CRC could be safely performed. Although it often requires technical difficulty with adjacent organ resection, curative resection may lead to favorable outcomes.

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**A2-4: Examination of the colorectal cancer marker using metabolomics from urine analysis**
Tetsushi Nakajima1, Kenji Katsumata1, Kenta Kasahara1, Hiroshi Kuwabara1, Masatoshi Shigoka1, Masanobu Enomoto1, Tetsuo Ishizaki1, Masahiro Sugimoto2, Akihiko Tuchida1

1) Department of Gastrointestinal Surgery and Pediatric Surgery, Tokyo Medical University
2) Institute for Advanced Biosciences, Keio University

**Introduction:** The metabolomics reflects metabolic disorders to be taking place in a current living body. As for the disease with the metabolic disorders including the cancer, a new marker may be discovered. We compare metabolomics from urine for cases with colorectal cancer and without in order to develop minimal invasive screening method.

**Methods:** The subjects consisting of 168 colorectal cancer patients (97 patients are men and 71 patients are women; mean age 67.6±11.7) and 5 non-cancer people (4 people are men and 1 is woman; mean age 61.4±19.3). We use liquid chromatography-triple quadrupole spectrometry (LC-QqQMS) and capillary electrophoresis time-of-flight-mass spectrometry (CE-MS) to analyze urine metabolomics signature of these subjects. In consequence, we choose 17 materials: polyamine, amino acid and creatinine and perform high precision determination for them. The concentration of materials are corrected with that of creatinine for accurate comparison.

**Results:** The AUC value of acetyl polyamine group is nearly 0.7, and the highest AUC value is that of N1-acetylspermine (0.763, 95%CI: 0.606-0.912, P=0.045). The false positive rate of N1-asetylspermine is less than that of amino acid, as a result N1-asetylspermine might be a new colorectal cancer maker.

**Conclusion:** We explored new colorectal cancer marker by analyzing metabolomics from urine using LC-QqQMS. We plan to collect more non-cancer bearing cases and investigate their metabolomics from urine. On the other hand, we explore metabolomics exhaustively by using other measurement methods. Our next purpose is to develop high precision discriminant by several markers and verify them.
A2-5: Outcomes of surgery for fecal incontinence
Kohei Hatta1,2), Koutaro Maeda1, Tsunekazu Hanai1, Koji Masumori1, Hidetoshi Katsuno1, Yoshikazu Koide1, Hiroshi Matsuoka1, Tomoyoshi Endo1, Miho Shiota1, Masahiro Mizuno1, Yeong-Cheol Chong1)
1) Department of Surgery, Fujita Health University
2) Department of Surgery, Nihonkoukan Hospital

Introduction: Fecal incontinence is a popular disease, but many patients don’t consult hospital because of the shame and lack of knowledge of improvement by treatment. Medical treatments are initially done, and symptoms improve in more than half of the patients. Surgical intervention is considered in patients with anatomical problems and without improvement after conservative treatments. We herein report the outcomes of surgical procedures for fecal incontinence between 2007 and 2015 in our institute.

Methods: We usually perform 3 types of operations for fecal incontinence according to the origin of fecal incontinence. Mano-volmetric study and Cleveland Clinic Florida Faecal Incontinence (CCF-FI) score were evaluated before and after each surgical intervention.

Results: In patients with rectal prolapse, open or laparoscopic rectopexy was performed. Vector volume and maximum resting pressure (MRP) with CCF-FI score (P=0.046) improved significantly. In patients with sphincter and levator damage, Sphincteroplasty and/or levatorplasty was performed. Mano-volmetric study did not show any significant change, but CCF-FI score significantly decreased (P=0.036). Sacral neuromoduration (SNM) is a new method for fecal incontinence, and we introduced it on April 2014. This method is a minimal invasive operation. Improvement of symptom observed in 57% of patient, however mano-volmetric study did not show any significant change with favorable CCF-FI score decrease (P=0.083).

Conclusion: Excellent results were attained by these treatments. We would like to conclude that surgical intervention has some role in the improvement of symptom of fecal incontinence.

A2-6: A case of laparoscopic colorectal cancer resection associated with congenital XI factor deficiency
Hiroka Kondo, Shigeki Yamaguchi, Yoshimasa Ishii, Jo Tashiro, Kiyoka Hara, Asami Suzuki, Hiroki Shshimizu, Kenichi Takemoto
Department of Gastroenterological Surgery, Saitama Medical University, International medical center

Introduction: Congenital XI factor deficiency is a rare disease caused by autosomal recessive inheritance. Clinically there are few spontaneous hemorrhages, which can cause abnormal bleeding after trauma, surgery and tooth extraction. We experienced a colon cancer patient with congenital XI factor deficiency who successfully operated by using FFP.

Case: The patient was 82 - year - old woman who complained right lower abdominal pain for two months, also no previous history of abnormal hemostasis. She received colonoscopy and diagnosed as ascending colon cancer. Preoperative blood tests resulted in prolongation of APTT. After further investigation factor XI activity was abnormal as 3.0% and congenital factor XI deficiency was diagnosed. By replenishment of factor XI by FFP, APTT was improved to 37 seconds so that perioperative abnormal bleeding could be avoided for an operation for ascending colon cancer. The patient received laparoscopic ileocolic resection and discharge postoperative day 7 uneventfully.

Conclusion: Although congenital factor XI deficiency is a rare disease and it is often asymptomatic, bleeding during injuries and surgery is a problem. In this case, to supplement FFP before surgery was useful for safe perioperative management.
A3-1: Management of colorectal anastomosis leakage
Tao-Wei, David, Ke
Colorectal Surgery Department, China Medical University Hospital, Taichung, Taiwan

Colorectal anastomotic leakage is considered as one of the major complications especially in elective colorectal surgery. The leakage rate after colorectal anastomosis remains between 1-22% with increased incidence of leaks in lower colorectal anastomosis or coloanal anastomosis. Leaks are associated with high morbidity, persistent stomas, high cost to health care system and significant mortality. Most anastomotic leakage heal after performing proximal diversion stoma but some persist as abscess or cause fistula. Management of anastomosis leakage appropriately and earlier is impartament. General consensus for leakage management includes non-operative and operative methods. However, it also depends upon attending surgeons experience or institutional protocols.

Re-laparoscopy after colorectal anastomotic leakage is feasible and safe and plays roles in some situations. It is mentioned in some reports and most have suggested advantages compared to open surgery are early return of gastrointestinal function, lower wound related complications, shorter hospital stay and fewer incisional hernias. Combined laparoscopic and endolumenal approach could be to avoid post-operative persistent abscess or fistula. This also provides the possibility of assessing the mucosal viability and size of defect at the anastomotic site. I'll share the experience about the management of colorectal anastomosis leakage using hybrid approach method in China Medical University Hospital.

A3-2: Detailed stratification of pMP colorectal cancers based on the scoring of poor prognostic factors
Koji Komori, Takashi Kinoshita, Taihei Oshiro, Seiji Ito, Tetsuya Abe, Yoshiki Senda, Kazunari Misawa, Yuichi Ito, Norihisa Uemura, Seiji Natsume, Jiro Kawakami, Akira Ouchi, Masayuki Tsutsuyama, Takahiro Hosoi, Itaru Shigeyoshi, Tomoyuki Akazawa, Daisuke Hayashi, Hideharu Tanaka, Yasuhiro Shimizu
Department of Gastroenterological Surgery, Aichi Cancer Center Hospital

Introduction: The purpose of this study was to stratify colorectal cancers invading the muscularis propria (pMP) according to the scores of poor prognostic factors, including the configuration and distribution of adenocarcinoma for predicting the prognosis.

Methods: 145 patients with colorectal cancer underwent curative resection (curability A) with extended lymph node dissection (D3).
(1) The maximum depth of pMP invasion was vertically estimated and used to classify the cases into three groups representing different growth patterns, as follows: “upper type”, “middle type”, “lower type”
(2) The configuration of pMP invasion was used to classify the cases into three groups representing different growth patterns, as follows: “expansive type”, “spindle type”, “diffuse type”. The scores were allocated, as follows: upper type, 0 point; middle type, 1 point; lower type, 2 points; expansive type, 0 point; spindle type, 1 point; and diffuse type, 2 points.
(3) The sum of points was scored and categorized as follows: 0 or 1 point, “low-risk group”; 2 points, “middle-risk group”; and 3 or 4 points, “high-risk group.”

Results: The 5-year disease-free survival rates in the low-risk, middle-risk, and high-risk groups were 100.0%, 98.0%, and 85.6%, respectively (p < 0.0001). The overall 5-year survival rates in the low-risk, middle-risk, and high-risk groups were 98.4%, 100.0%, and 83.2%, respectively (p < 0.0001).

Conclusion: On the basis of the stratification according to the scoring of poor prognostic factors, the high-risk group has the potential to contribute significantly to the prediction of the prognosis of patients with pMP colorectal cancers.
A3-3: Standardization of laparoscopic surgery for right transverse colon cancer
Daisuke Yamamoto, Hiroyuki Bando, Dai Fukushima, Masahide Isowa, Yusuke Sakimura, Teruya Minami, Yuichiro Furutani, Hayato Suzuki, Toshikatu Tsuji, Hirotaka Kitamura, Noriyuki Inaki, Masaru Kurokawa, Tetsuji Yamada
Department of Gastroenterological Surgery Ishikawa Prefectural Central Hospital

Introduction: The procedure of laparoscopic surgery for right transverse colon cancer in our department will be shown and its results will be reported.

Methods: First, cut the omentum and enter the omentum bursa. The transverse colon mesentery is incised at the lower limb of the pancreas, and the accessory right colic vein branching from the gastrocolic trunk is dissected to expose the superior mesenteric vein (SMV). Subsequently, dissection at the left border of SMV from the caudal side to dissect the ileocolic artery and vein. The transverse colon mesentery is dissected and it is made to communicate with the head side, the mesenteric base is dissected, and the middle colic artery and vein is cut off. Measure the distance from the tumor and cut middle colon mesentery into the dissected point. The ileum is preliminarily dissected in the peritoneal cavity, peeling between the retroperitoneum and the mesocolon, and completing the colonic mobilization. Cutting of the transverse colon and anastomosis are performed outside the peritoneal cavity.

Results: 49 patients underwent laparoscopic right hemicolectomy for right transverse colon cancer between January 2007 and June 2016. The median age was 73, the average operation time and bleeding were 248 minutes, 39 ml. Postoperative hospital stay was 10 days, median number of harvested lymph nodes was 32. Clavien-Dindo grade Two or more postoperative complications of 2 cases of ileus, 1 case of anastomotic leakage, 1 case of SSI were found.

Conclusion: It is possible to standardize laparoscopic right hemicolectomy by understanding anatomical features.

A3-4: Preoperative m-FOLFOX 6 treatment of locally advanced colorectal cancer invading the urinary bladder
Satoru Kagami, Kimihiko Funahashi, Jyunichi Koike, Takamaru Koud, Mitunori Ushigome, Hiroyuki Shiokawa, Akiharu Kurihara, Hideaki Shimada, Hironori Kaneko
Department of Gastroenterological Surgery, Toho University Omori Medical Center

Introduction: The management of locally advanced rectal and sigmoid cancer invading adjacent organs has evolved significantly in the last few decades. Since 2008, we have administered m-FOLFOX 6 preoperatively to achieve tumor shrinkage in patients with locally advanced colorectal cancer invading adjacent organs.

Method: We evaluated retrospectively the surgical and long-term results for 7 patients treated between 2008 and 2013 with preoperative m-FOLFOX 6 for locally advanced colorectal cancer invading the urinary bladder.

Results: There were 7 patients (6 men, 1 woman) with an average age of 60.7 years (range, 35-77 years). Tumor location was at the rectum in 4 patients and the sigmoid colon in 3 patients. For all patients, a colostomy or ileostomy was created before m-FOLFOX 6 administration. Preoperatively, m-FOLFOX 6 was administered for an average of 6.3 cycles (range, 4-10 cycles). A severe adverse event (≥ grade 3) was found in one patient. There was no complete response, but partial response was shown in 5 patients (response rate: 71%). In all patients, a complete R0 resection was performed. Two patients had postoperative complications (≥ grade 2, Clavien-Dindo classification). Pathological findings for the resected specimens were grade 2 in 2 patients and grade 1 in 5 patients. None of the 7 patients had a recurrence during the median follow-up period of 58 months (range, 35-97 months).

Conclusion: These results suggested that preoperative treatment using m-FOLFOX 6 could be useful for locally advanced colorectal cancer invading the urinary bladder.
A3-5: Experience of laparoscopic peritoneal lavage for rectal anastomotic leakage
Dai Fukushima, Daisuke Yamamoto, Masahide Isowa, Kenta Douden, Yusuke Sakimura, Teruya Minami, Yuitirou Furutani, Hayato Suzuki, Tosikatsu Tsuji, Hirotaka Kitamura, Noriyuki Inaki, Masaru Kurokawa, Horoyuki Bandou
Department of Gastroenterological Surgery, Ishikawa Prefectural Central Hospital

Introduction: Rectal anastomotic complications are associated with an increased mortality and morbidity. The gold standard of surgical treatment of rectal anastomotic leakage is abdominal drainage of collected fluid and stoma formation. Our standard surgery for colorectal cancer is laparoscopic approach. Not to eliminate the benefit of it, we prefer to minimally invasive surgery for the leakage.

Method: Laparoscopic observation revealed peritonitis caused by rectal anastomotic leakage obviously. Small bowel adhesions and expansion were usually mild in early postoperative period. The abdominal cavity was irrigated with lots of saline solution. After adequate drainage of pelvic collection, a drain tube is placed across the anastomosis site. Finally, the loop ileostomy was created.

Results: Among 519 patients were underwent rectal anterior resection from January 2010 to August 2016 (laparotomy 41 cases, and laparoscopic 478 cases), anastomotic leakage was occurred 34 cases. 17 cases were required reoperation and we performed laparoscopic peritoneal lavage in 8 cases. We investigated those 8 cases retrospectively. Median age was 66.7 years, and the gender ratio was 7:1. Mean operative time was 114 minutes. 7 cases were discharged from the hospital on postoperative day in 31.3 days average without any complication. One patient died of multiple organ failure from sepsis after surgery 92 days. Ileostomy was closed 3-6month later of all 7 patients.

Conclusion: Laparoscopic peritoneal lavage for rectal anastomotic leakage could help for diagnosis and reduce the risk of surgical site infection. Consequently, this approach should be considered for the patients with suspect of rectal anastomotic leakage.

A4-1: Intraoperative indocyanine green fluorescence imaging for evaluation of blood supply in local flaps for reconstruction in oral cancer
Masaaki Karino, Takahiro Kanno, Taichi Ide, Yuki Tabuchi, Aya Yoshino, Joji Sekine
Department of Oral and Maxillofacial Surgery, Shimane University, Faculty of Medicine

Introduction: Local flap reconstruction is a useful surgical procedure in head and neck cancer. However, the flaps used may become necrotic because of an unstable blood supply. The blood supply to local flaps can now be determined during head and neck surgery using the fluorescence properties of indocyanine green (ICG). The aim of this study was to investigate the feasibility of intraoperative ICG imaging in patients with head and neck cancer undergoing local flap reconstruction.

Methods: This imaging technique involves intravenous administration of ICG intraoperatively and illumination of the surface of the local flap by an infrared camera. ICG fluorescence can be detected in the near-infrared region as deep as 10 mm from the tissue surface.

Results: Four patients with oral cancer (1 man, 3 women; mean age 67.8 years) were evaluated. The histopathological diagnoses were squamous cell carcinoma, mucoepidermoid carcinoma, myoepithelial carcinoma, and ameloblastic carcinoma. In all cases, the primary tumor was resected and the hard and/or soft tissue defect was reconstructed using a local flap. Three sternocleidomastoid flaps and one temporal muscle flap were used. All the flap reconstructions were successful. Postoperative complications included minor infection and partial skin necrosis.

Conclusion: ICG fluorescence imaging is feasible for intraoperative evaluation of the blood supply of local flaps in patients with head and neck cancer undergoing reconstruction. This imaging method may help to increase the success rate of local flap reconstruction.
A4-2: Orbital apex syndrome on the normal side postoperatively in a patient with multiple facial fractures
Masaaki Karino, Takahiro Kanno, Taichi Ide, Yuki Tabuchi, Aya Yoshino, Joji Sekine
Department of Oral and Maxillofacial Surgery, Shimane University, Faculty of Medicine

Background: Orbital apex syndrome can develop when the oculomotor, trochlear, abducens, trigeminal, and/or optic nerves at the orbital apex are damaged by a tumor, cyst, inflammatory condition, or injury. Symptoms of this syndrome include mydriasis, blepharoptosis, and exophthalmos, as well as impaired ocular motility, eyelid sensation, and vision. Here we report a case of orbital apex syndrome on the normal side following surgery to repair multiple facial fractures mainly on the right.

Case report: A 77-year-old Japanese man was referred to our acute care surgery center with injuries sustained in a road traffic accident. Computed tomography scans showed multiple fractures involving the pelvis, right radius and cubitus, the cranial base extending to the level of the carotid canal, as well as Le Fort I, II, and III fractures of the maxilla on the right side and mandible bilaterally. We performed open reduction and internal fixation of the maxilla on both sides using a coronal flap via a transconjunctival and transcaruncular approach, an intraoral vestibular approach, and a submandibular and retromandibular approach. All wounds healed well postoperatively. However, 1 month after surgery, the patient developed ptosis on the normal side which was attributed to paralysis of the left oculomotor nerve. A postoperative computed tomography scan suggested orbital apex syndrome caused by inflammation of the sphenoidal and ethmoidal sinuses. The ptosis resolved by 3 months postoperatively and the subsequent course was uneventful.

A4-3: Dedifferentiated adenoid cystic carcinoma of the palate: a case report
Yoshiki Nariai1,2, Teruaki Iwahashi2, Masaaki Watanabe2, Takahiro Kanno2, Joji Sekine2
1) Department of Oral and Maxillofacial Surgery, Matsue City Hospital
2) Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine

Background: Adenoid cystic carcinoma (ACC) accounts for approximately 10% of all salivary gland tumors and is a common malignant tumor of the minor salivary glands. ACC is characterized by slow growth, local recurrence, late distant metastasis, and potentially fatal outcome. Dedifferentiated ACC (dACC) includes both conventional neoplastic and highly malignant transformed components. Here we describe a patient with dACC of the palate.

Case report: A 62-year-old Japanese woman presented with a complaint of contact pain on the left side of the palate, and a 10 mm ulcer was seen on the left side. Enhanced computed tomography revealed a tumor-like lesion extending into the nasal and paranasal sinuses with destruction of bone. A biopsy showed dACC. Metastases to the ipsilateral superior internal jugular and contralateral lateral retropharyngeal (Rouvière's) lymph nodes and lung were found. Although concomitant chemoradiotherapy controlled the primary lesion and lymph node metastases, the patient died of multiple metastases to the lung, liver, and bone.

Conclusion: Forty-nine cases of dACC were reported between 1999 when this entity was first described and 2017, most of which involved the submandibular glands, sinonasal tract, and minor palatal glands. Twelve of 14 patients who died and for whom detailed information was available were reported to have had lymph node and/or distant metastases, with a mean survival time of 23 (range 3–120) months. It appears that dACC behaves more aggressively than conventional ACC. However, the biological behavior of dACC is still not understood, and accumulation and analysis of more data are needed.
A4-4: Oral rehabilitation with gap formation and dental implants in a patient with ankylosis of the temporomandibular joint
Koji Tsunematsu1, Takahiro Kanno2, Satoe Okuma3, Joji Sekine2
1) Department of Oral and Maxillofacial Surgery, Japanese Red Cross Society Masuda Medical Center
2) Department of Oral Maxillofacial Surgery, Shimane University Faculty of Medicine
3) Department of Oral and Maxillofacial Surgery, Matsue City Hospital

This paper describes restoration of oral function using dental implants following bilateral gap formation in the mandibular ramus. A 66-year-old Japanese man was referred to our hospital with a chief complaint of limited mouth opening. His past medical history included peripheral arterial disease (PAD) and diabetes mellitus (DM). He had been involved in a road traffic accident 10 years earlier, in which he sustained severe trauma including maxillofacial fractures; however, no temporomandibular joint (TMJ) fracture was noted in the emergency department at that time. Bilateral patellar and maxillofacial fractures were repaired. The patient had recently recognized difficulty opening his mouth and was referred to us because of severe trismus noted during dental treatment in March 2014. On the first visit, his maximum mouth opening (MMO) was 10 mm and TMJ ankylosis was present bilaterally. After his PAD and DM had been stable on medical treatment for 2 months, the patient underwent bilateral gap formation of the mandibular ramus via an intraoral approach under general anesthesia to release the ankylosis, resulting in an MMO of 60 mm. Oral rehabilitation was started on postoperative day 2 to improve mouth opening until his MMO stabilized at 50 mm. After 6 months of treatment for dental caries and periodontitis along with rehabilitation of mouth opening, two dental implants were placed bilaterally in the mandibular molar region. The patient’s treatment course was uneventful and his MMO remains stable. Here we report the surgical technique used in this patient and its outcome.

A4-5: Clinical features and modes of treatment of mandibular fractures at the Department of Oral and Maxillofacial Surgery, Shimane University Hospital
Hiroto Tatsumi1, Eiji Nakatani2, Takahiro Kanno3, Yoshiki Nariai4, Tatsuo Kagimura2, Joji Sekine3
1) Department of Oral and Maxillofacial Surgery, Oki Regional Hospital
2) Translational Research Informatics Center, Foundation Biomedical Research and Innovation
3) Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine
4) Department of Oral and Maxillofacial Surgery, Matsue city Hospital

Background: The number of elderly patients with maxillofacial trauma is rapidly increasing due to more active lifestyles and increased longevity. Shimane Prefecture has the most rapidly growing elderly population in Japan. The aim of this study was to identify the distinctive features and modes of treatment of patients with mandibular fracture requiring hospitalization in the Department of Oral and Maxillofacial Surgery, Shimane University Hospital, Japan.

Methods: Patient age and sex, time interval between injury and first consultation, years since injury, cause of injury, fracture site, treatment, and duration of hospitalization were evaluated.

Results: Three hundred and five patients were hospitalized for treatment of mandibular fracture between 1980 and 2010. Younger age was associated with an increased risk of mandibular fracture. The incidence of mandibular fracture was higher in men than in women, particularly in the younger age group, but the difference decreased with increasing age. Time to first hospital consultation decreased progressively during the study period. Falls were a more frequent cause of mandibular fracture in patients aged ≥ 60 years than in those aged <60 years. Mandibular fractures with condyle, symphysis, and angle involvement were most common and were associated with sex, age, and treatment mode. The duration of hospitalization has decreased since 1980.

Conclusion: In our department, a greater proportion of mandibular fractures occurred in patients aged ≥ 60 years than in most previous studies, reflecting the greater proportion of elderly residents in Shimane Prefecture.
A5-1: Applicability of buccal fat pad grafting for oral reconstruction
Aya Yoshino1), Yoshiki Nariai1,2), Masaaki Karino1), Takahiro Kanno1), Joji Sekine1)
1) Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine
2) Department of Oral and Maxillofacial Surgery, Matsue City Hospital

Introduction: Pedicled buccal fat pad (BFP) fills an anatomical gap consisted of the buccinator muscle, the masseter muscle, and the ramus of the mandible. It has a sufficient blood supply from the surrounding arteries. We have been using BFP grafting for oral defects induced by ablative surgery for a tumor, an ankylosis of the temporomandibular joint and so on. This study sought to evaluate the applicability of pedicled BFP grafting with a higher number of cases than our previous report in 2015.

Methods: We retrospectively evaluated 65 graftings of 64 cases (29 men, 35 women; mean age 72.1 years). They received pedicled BFP grafting 9 year 7 month period from June 2007 to January 2017 in our department. The grafts were applied for the defects of the palate (n=10), the upper gingiva (n=16), the buccal mucosa (n=12), the lower gingiva (n=21), the oral floor (n=1), the temporomandibular joint (n=1), the coronoid process of mandible (n=1), and the mandibular bone defect induced by a gap arthroplasty of the mandible (n=3). Besides, by means of gene expression microarray analysis, we have investigated genes which are potential targets for epithelialization of BFP.

Results: Complete epithelialization of the BFP occurred within 4 weeks in most of the graftings. Four weeks post-operation, no complications occurred in most of the graftings.

Conclusion: BFP grafting appears to be feasible for the reconstruction of surgical defects in the oral region.

A5-2: Feasibility of a novel non-sutured open healing after sublingual extirpation for ranula
Aya Yoshino1), Masaaki Karino1), Takashi Koike2), Koji Tsunematsu3), Takahiro Kanno1), Joji Sekine1)
1) Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine
2) Department of Oral and Maxillofacial Surgery, Masuda Red Cross Hospital
3) Department of Oral and Maxillofacial Surgery, Hamada Medical Center

Introduction: An oral ranula is an extravasation mucocele that arises from the sublingual duct and is caused by a ruptured main duct or ruptured acini following obstruction. Although most oral ranulas are treated surgically, the standard treatment for a ranula remains controversial. Ranulas are lesions that can be easily observed and are usually treated with incision and drainage, marsupialization, or sclerotherapy. However, in some cases, the ranula recurs and the patient needs referral to a tertiary medical center. The ideal treatment has been reported to be excision of the ranula and sublingual gland via an intraoral approach, with copious irrigation and closure of the wound using loose sutures. The aim of this study was to evaluate the feasibility of a slightly modified version of this surgical technique.

Methods: We retrospectively evaluated 10 patients (3 men, 7 women; mean age 18.5 years) who underwent surgical treatment for a ranula in our department between October 2014 and January 2017. In each case, the ranula and sublingual gland were excised via an intraoral approach and the wound was left open.

Results: The mean operating time was 38 min. Complete epithelialization occurred within 2 weeks in all cases. No complications occurred in the 4 weeks following surgery.

Conclusion: Our novel non-sutured surgical technique appears to be feasible for ranula.
A5-3: Use of an intraoperative navigation system for retrieving a broken dental instrument in the mandible: a case report
Masanori Masui1), Shintaro Sukegawa1), Takahiro Kanno1,2), Kenichi Matsumoto1), Yuka Sukegawa1), Yoshihiko Furuki1)
1) Division of Oral and Maxillofacial Surgery, Kagawa Prefectural Central Hospital
2) Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine

Introduction: A fracture of root canal instruments beyond the apex is a troublesome incident during an endodontic treatment. Locating and retrieving them represents a challenge to maxillofacial surgeons because it is difficult to access due to proximity between the foreign body and vital structures. Computer-aided navigation provides a correlation between preoperatively collected data and intraoperatively encountered anatomy. However, using navigation system for mandible is difficult as the mandibular mobility complicates its synchronization with the preoperative imaging data during surgery. Here we report an efficient retrieval of a broken dental instrument using an intraoperative navigation system and custom-made interocclusal splint for the reproducibility of the mandibular position.

Case Presentation: This reports a case of a dental instrument breakage in the mandible during an endodontic treatment in a 65-year-old patient. The broken instrument was removed using a minimally invasive approach with a surgical navigation system and an interocclusal splint. Using the three-dimensional position of the navigation probe, a location that best approximated the most anterior extent of the fragment was selected. A small bony window was prepared through the buccal cortex that corresponded to the root apex. The instrument was visualized and extruded from the apical to the tooth crown side and was then removed using forceps through the medullary cavity of the crown side. Follow-up was uneventful; her clinical course was good.

Conclusion: The use of an intraoperative navigation system together with an interocclusal splint enabled the retrieval of a broken dental instrument in a safe and minimally invasive manner.

A5-4: Complications of a poly-L-lactic acid and polyglycolic acid osteosynthesis device for internal fixation in maxillofacial surgery
Sintaro Sukegawa1), Takahiro Kanno1,2), Kenichi Matsumoto1), Yuka Sukegawa1), Masanori Masui1), Yoshihiko Furuki1)
1) Division of Oral and Maxillofacial Surgery, Kagawa Prefectural Central Hospital
2) Department of Oral and Maxillofacial Surgery, Shimane University Faculty of Medicine

Introduction: The purpose of this study was to retrospectively evaluate and examine the incidence of complications using Poly-L-lactic acid and polyglycolic acid (PLLA/PGA) copolymer plate system in maxillofacial osteosynthesis.

Methods: The retrospective study included 87 patients (50 men, 37 women), who needed maxillofacial surgery. We examined the proportion of complications and their factors from clinical data. A comparison was also made for plate decomposition using the molecular weight of the plate without plate exposure and complications.

Results: Osteosynthesis sites healed in all patients. Ten cases (11.5%) showed plate exposure-related complications, with all occurring at intraoral surgical sites. There was no significant difference in molecular weight changes of plates in resorbable process. Statistical analysis of study variables between patients with and without exposed plates showed that the plate thickness was significantly associated with the risk of exposed plates (p < 0.05).

Conclusion: The proposed PLLA/PGA device could be a useful rapid resorbable material for maxillofacial osteosynthesis. When thick plates are used on the intraoral site, it may be necessary to pay attention to the complication of plate exposure. Even if exposure-related complications have occurred, absorption and degradation of this material proceeds, suggesting the ease of appropriate risk management.
A6-1: Evaluation of total thoracoscopic extended thymectomy for thymoma complicated myasthenia gravis
Takaharu Kiribayashi, Yoshihisa Saida, Nathuya Katada, Manabu Watanabe, Youichi Nakamura, Yasushi Okamoto, Koji Asai, Toshiyuki Enomoto, Hironobu Nishimuta, Osahiko Hagiwara, Toru Niithuma, Kazuki Itoh, Shinya Kusachi
Department of Surgery, Toho University Ohashi Medical Center

Introduction: We have performed total thoracoscopic extended thymectomy for thymoma complicated myasthenia gravis that we discuss in this report.

Patients and Methods: We have performed the procedure in supine position or lateral position. After identifying contralateral phrenic nerve, we determine which approach should be selected, right thoracic approach or bilateral thoracic approach. We have mainly used bipolar tissue sealing system for thoracoscopic surgery. Between January 1989 and December 2016, we have performed 16 total thoracoscopic extended thymectomy cases among total 86 extended thymectomy cases. The thymoma complicated myasthenia gravis case was five cases (case only for myasthenia gravis was seven cases).

Results: The total thoracoscopy cases included 2 male and 3 female; mean age was 43.8 year ; mean operative time was 417.6 minutes ; mean postoperative hospital stay was 6.6 days .Compared with conventional procedure, total thoracoscopic procedure took 145.5 minutes longer in operative time. Whereas postoperative hospital stay was 7.4 days shorter. All cases of myasthenia gravis showed improvement of the symptoms. And no exacerbation of postoperative symptom or acetylcholine receptor antibody increase was observed. So, the patients could be managed well in a short-term control.

Conclusion: In the thymoma complicated myasthenia gravis, total thoracoscopic extended thymectomy was useful in short term prognosis that we discuss in this report.

A6-2: Carcinosarcoma of the esophagus presenting as esophageal stenosis
Tadashi Higuchi, Natsuya Katada, Asako Takahashi, Ryohei Watanabe, Sayaka Nagao, Toshiyuki Enomoto, Koji Asai, Yoichi Nakamura, Manabu Watanabe, Yoshihisa Saida, Shinya Kusachi
Department of Surgery, Toho University Ohashi Medical Center

Esophageal carcinosarcoma is a rare malignant tumor. A 76-year-old man with dysphagia consulted our hospital. Gastrointestinal fiberscopy revealed a stricture of the thoracic esophagus at approximately 34 to 47 cm from the incisor, and a macroscopic type of the tumor was 0-Ip. Biopsy results indicated carcinosarcoma. The patient underwent esophagectomy and regional lymphadenectomy with gastric tube reconstruction via laparoscopy-assisted surgery and thoracotomy. Pathological examination of the surgical specimen revealed that the tumor was mostly composed of spindle-shaped atypical cells. However, because a small transitional area between the squamous cell carcinoma and sarcoma was observed, diagnosis of carcinosarcoma was made. The depth of invasion was submucosal (sm), and no regional lymph node metastasis was detected. We classified the tumor as pT1b (sm) N0 M0, stage I. Immunohistochemical examination revealed, spindle-shaped sarcomatous cells that displayed positive reactions to vimentin and cytokeratin AE1/AE3. The Ki67 (MIB-1) labeling index was high. The patient was discharged after an uneventful postoperative course and was doing well as an outpatient at 6 months follow-up. We report this case with a review of related literature.
A6-3: Impact of postoperative infectious complications on long-term survival after surgery for esophageal cancer
Hiroki Imaoka, Yasuhiko Mohri, Masaki Ohi, Shigeyuki Yoshiyama, Hiromi Yasuda, Junichiro Hiro, Yuji Toiyama, Minako Kobayashi, Toshimitsu Araki, Masato Kusunoki
1) Department of Gastrointestinal and Pediatric Surgery, Mie University Graduate School of Medicine
2) Department of Innovative Surgery, Mie University Graduate School of Medicine

Introduction: Surgical resection is the only real chance of cure for esophageal cancer, although it carries considerable postoperative morbidity and mortality. The long-term prognosis for patients undergoing operation depends largely on the pathologic stage of the disease. The impact of postoperative infectious complications on survival after esophagectomy remains controversial. The aim of our study was to investigate the influence of infectious complications on the outcome of surgery for esophageal cancer.

Methods: Medical records of 114 patients undergoing esophagectomy for squamous cell carcinoma or adenocarcinoma at our institution from 2002 to 2015 were reviewed. An observational cohort study was performed to assess postoperative infectious complications and effects on overall survival. Univariate and multivariate analyses using the Cox proportional hazard model were performed.

Results: The incidence of postoperative infectious complication was 46 (40.4%). Overall survival (OS) of patients with any infectious complication was shorter than that of patients without infectious complication [hazard ratio, HR 2.01, 95% confidence interval, CI, (1.08-3.72)]. Multivariate analysis revealed that postoperative infectious complication was independently associated with poor OS [HR 2.95, 95%CI (1.50-5.81)].

Conclusion: Our results indicate that postoperative infectious complications may worsen patient prognosis after esophagectomy. Strategies to minimize postoperative infectious complications should improve outcomes in this cancer operation.

A6-4: A case of breast cancer accompanied by a phyllodes tumor on the ipsilateral breast
Keita Adachi, Shuhei Suzuki, Yuki Masuo, Hitomi Kubota, Saki Nagashima, Yukiko Hara and Kenichi Sakurai
Division of Breast and Endocrine Surgery, Department of Surgery, Nihon University School of Medicine

Introduction: Breast tumors are histologically classified into epithelial tumors, mixed connective tissue and epithelial tumors, and nonepithelial tumors. Breast cancer is a malignant epithelial tumor, and phyllodes tumor is a representative of mixed connective tissue and epithelial tumors. It is rare that both tumors occur at the same time, and case reports that both developed in synchronously on the ipsilateral side breast are few in number.

Presentation of case: A 50-year-old woman consulted at hospital for a lump on her left breast. Physical examination revealed a 30mm in diameter, smooth-marginated mass in the BD area. A mammography revealed a mass with regular shape in the LI area and a FAD in the UO area. An ultrasonography of the left breast showed a 43mm, well-circumscribed, lobulated mass in the BD area and a 16mm, poor defined hypoechoic mass with irregular margins in the C area. Core needle biopsy was performed for each mass, so the former was diagnosed as fibroepithelial lesion and the latter as invasive ductal carcinoma. The patient underwent total mastectomy for the left breast. The histopathological findings from the surgically resected specimens revealed a concurrence of invasive ductal carcinoma and benign phyllodes tumor.

Discussion: Here, we report a case of breast cancer accompanied by a phyllodes tumor on the ipsilateral breast, which is rare in the literature.
A6-5: Indoleamine 2,3-dioxygenase activity in intra-cystic breast tumors
Kenichi Sakurai1,2, Shigeru Fujisaki2, Hitomi Kubota1, Saki Nagashima1,2, Yuki Masuo1, Keita Adachi1, Ryouichi Tomita2, Shuhei Suzuki1,2, Yukiko Hara1, Katsuhisa Enomoto1, Tomohiro Hirano1
1) Division of Breast and Endocrine Surgery, Department of Surgery, Nihon University School of Medicine
2) Department of Surgery, Fujisaki Hospital

Background: Indoleamine 2,3-dioxygenase (IDO) is an enzyme that catabolizes tryptophan, which can result in the death of T lymphocytes.

Objective: The aim of this study is to investigate immunological situation of intra-cystic breast tumors.

Methods: We took liquid from three intra-cystic papilloma cases and five intra-cystic breast cancer cases. IDO activity can be measured by Tryptophan (Trp) / Kynurenine (Kyn) ratio. Trp and Kyn were measured by High Performance Liquid Chromatography (HPLC). Then we measured Trp/Kyn ratio in these samples. The correlations about Trp/Kyn ratio between the papilloma groups and the breast cancer groups were studied.

Results: The Trp/Kyn ratio was significantly lower in the breast cancer group than in the papilloma group.

Conclusion: These results suggested that to measure Trp/Kyn ratio from cystic liquid of the intra-cystic breast lesions is useful to distinguish benign intra-cystic lesion or malignant intra-cystic lesion.

A6-6: Breast cancer with micro invasion and lymph node metastasis diagnosed by microdochectomy: Report of a case
Kenichi Sakurai1,2, Shigeru Fujisaki2, Hitomi Kubota1, Saki Nagashima1,2, Yuki Masuo1, Keita Adachi1, Ryouichi Tomita2, Shuhei Suzuki1,2, Yukiko Hara1, Katsuhisa Enomoto1, Tomohiro Hirano1
1) Division of Breast and Endocrine Surgery, Department of Surgery, Nihon University School of Medicine
2) Department of Surgery, Fujisaki Hospital

We report that a case of breast cancer with micro invasion and lymph node metastasis. The patient was 72-year-old woman who had spontaneous nipple discharge from her left breast. There was no lesion by mammography and duct endoscopy. Ultrasonography showed a low echoic lesion, 23 x 15 mm in diameter, in the CD area of her left breast. The contrast enhanced MRI showed the high intensity area, 25 mm in diameter, on her left breast. Microdochectomy was performed. The histopathological diagnosis was invasive ductal carcinoma (invasion of 2 mm), and surgical margin was positive. Then, she was performed breast conserving surgery plus axillary lymph nodes dissection. The pathological diagnosis from resected surgical specimen was invasive ductal carcinoma with micro lymph node metastasis, positive for ER and PgR, and negative for HER-2/neu protein expression. Ki-67 labeling index was 10%. The surgical margins were negative. She was given radiation therapy and endocrine therapy as adjuvant therapy. One year and six months after surgery, she was well without metastasis.
A7-1: KLASS trial: laparoscopic gastrectomy for gastric cancer
Hyuk-Joon Lee
Department of Surgery and Cancer Research Institute, Seoul National University College of Medicine, Seoul, Korea

Laparoscopic gastrectomy (LG) has been widely used to treat gastric cancer due to the several benefits of the minimally invasive approach, such as less postoperative pain, better cosmesis, rapid recovery of bowel function, short hospital stay, and a rapid return to normal activity.

KLASS-01
Our KLASS group conducted a phase III, multicenter randomized controlled trial to compare the short and long term outcomes of LADG versus open distal gastrectomy (ODG) in patients with clinical stage I gastric cancer in Korea (KLASS-01). A total of 1,416 patients were randomly assigned to the LADG group (n = 705) or the ODG group (n = 711) between Feb 1, 2006 and Aug 31, 2010. The overall complication rate was significantly lower in the LADG group (LADG vs. ODG; 13.0% vs. 19.9%, P = .001). In detail, the wound complication rate of the LADG group was significantly lower than that of the ODG group (3.1% vs. 7.7%, P < .001). The major intra-abdominal complication (7.6% vs. 10.3%, P = .095) and mortality rates (0.6% vs. 0.3%, P = .450) were similar between groups. Our data showed that LADG for patients with clinical stage I gastric cancer is safe and has a benefit of lower occurrence of wound complication compared with conventional ODG.

Very recently, long term outcome of KLASS-01 was presented in ASCO 2016. Herein, no significant differences were observed in 5-year overall and recurrence free survival rates between LADG versus ODG group. Therefore, now we can say that LADG is superior to ODG in terms of better short-term and comparable long-term outcomes.

KLASS-02
Our KLASS group also conducted KLASS-02, RTC comparing LADG versus ODG in locally advanced gastric cancer. In KLASS-02, laparoscopic D2 lymph node dissection is the most important issue, therefore a thorough evaluation of surgical technique was made by internal and external reviewers. The enrollment criteria include histologically confirmed gastric adenocarcinoma with cT2-4a and N0-1. Primary end-point was relapse free 3-year survival.

A total of 1,050 patients were randomly assigned to LDG (n=526) or ODG group (n=524) between November 2011 and April 2015. The 30-day overall complication rate was 16.4% in LDG and 24.3% in ODG with statistical significance (p=0.002). Postoperative analgesics use and patients’ reported pain visual analog scale was less in LDG than in ODG. First day of flatus was shorter in LDG (3.53 d vs. 3.71 d, p=0.027) and post-operative hospital stay was shorter in LDG (8.1 d vs. 9.3 d, p=0.003). Mortality rate within 90 postoperative days was comparable between groups (0.38% in LDG vs. 0.57% in ODG). LDG with D2 lymphadenectomy for locally advanced gastric cancer has benefits of less complication rate, faster recovery, and less pain without compromising oncologic safety, compared with open surgery.

KLASS-04
PPG is regarded as one of the function preserving surgeries for middle third EGC. PPG has several functional advantages over distal gastrectomy (DG) including nutritional benefit and lower incidences of dumping syndrome, or bile reflux, or gallstone formation. Thus, we are now conducting multicenter randomized controlled trial comparing laparoscopic pylorus preserving gastrectomy versus laparoscopic distal gastrectomy for the middle third early gastric cancer (KLASS-04). Patients can be included in case: (1) cT1N0M0, assessed by endoscopic ultrasound or CT scan, (2) tumor is located at middle third of stomach (more than 5cm away from the pylorus), (3) aged 20-80 years old, and (4) adequate organ functions. Expected number of enrollment is 256 (128 patients in each group). The primary endpoint is the incidence of Dumping syndrome, assessed by Sigstad score at 1 year after surgery. Until July 2015, 109 patients were entered into KLASS-04, and we are expecting to finish the enrollment in the end of 2017.
A7-2: Surgical technique for tracing and keeping appropriate ‘dissectable layer’ during infrapyloric lymphadenectomy in laparoscopic gastrectomy
Yusuke Fujii, Noriyuki Hirahara, Ryoji Hyakudomi, Tetsu Yamamoto, Yoshiko Miyazaki, Takashi Kishi, Kiyoe Takai, Takeshi Nishi, Hikota Hayashi, Yasunari Kawabata, Yoshitsugu Tajima
Digestive and General Surgery, Shimane University Faculty of Medicine

Background: In laparoscopic gastrectomy for gastric cancer, infrapyloric (No.6) lymphadenectomy involves technical difficulties especially in tracing and keeping the appropriate ‘dissectable layer’ on the anterior surface of head of pancreas. We report the knack for No.6 lymphadenectomy with an adequate counter traction using the forceps by the operator’s left hand.

Procedure: The operator stands at the right side of the patient. After cutting the greater omentum and taking down the mesocolon transversum, the anterior pancreatic fascia (APF) is exposed. APF is dissected at the inferior border of No.6 lymph nodes, and the right gastroepiploic vein is cut. An adequate counter traction by holding the fatty tissue containing No.6 lymph nodes with the forceps by the operator’s left hand provides a layer of loose tissue, i.e., the appropriate ‘dissectable layer’ between lymph nodes and the anterior surface of the head of pancreas and relevant arteries can be sharply dissected. Magnified laparoscopic view and air-dissection promoted by pneumoperitoneum facilitate to identify the appropriate dissectable layer, and it is important to keep this layer for performing an easier and more reliable No.6 lymphadenectomy. Finally, the right gastroepiploic artery and infrapyloric artery are excised, and No.6 lymphadenectomy is completed.

Conclusion: The understanding of ‘dissectable layer’ is essential for No.6 lymphadenectomy. Holding the fatty tissue containing No.6 lymph nodes with the forceps by the operator’s left hand and making adequate counter traction provide an appropriate ‘dissectable layer,’ and keeping this layer facilitates a safe and adequate No.6 lymphadenectomy.

A7-3: Difference of early post-gastrectomy syndrome in patients with gastric cancer according to surgical procedures
Tomohiro Osaki, Hiroaki Saito, Youji Fukumoto, Yusuke Kono, Yuki Murakami, Hirohiko Kuroda, Tomoyuki Matsunaga, Yoshiyuki Fujiwara
Department of Surgery, Division of Surgical Oncology, Faculty of Medicine, Tottori University

Background: Post-gastrectomy syndrome (PGS) is problem to worsen quality of life (QOL) of patient who underwent gastrectomy. Recently, it have been reported that consecutive nutritional management from the early period after surgery might reduce PGS. It is known that different surgical procedures induce different types of PGS. We determined the details of PGS after gastrectomy to perform effective nutritional guidance in the current study.

Patients & Method: Forty-seven patients who underwent gastrectomy for gastric cancer at our hospital were included. We evaluated PGS by using PGSAS application at the time of admission and discharge, and analyzed them in ten subscales.

Results: The postoperative scores of abdominal pain (p=0.003), meal-related distress (p<0.001), dumping (p=0.04), dissatisfaction for daily life (p<0.001), and total symptom score (p=0.003) were significantly worse than those postoperative scores.

According to surgical procedures (DG vs. PG/TG), there was no difference between pre and postoperative scores in terms of meal-related distress, dissatisfaction for daily life, and total symptom score. However, the postoperative scores of abdominal pain in patients who underwent DG were significantly worse than those in patients who underwent PG/TG (p=0.004). On the other hand, the postoperative scores of dumping in patients who underwent PG/TG were significantly worse than those in patients who underwent DG (p=0.008).

Conclusion: PGS worsened QOL of patients who underwent gastrectomy from early period after gastrectomy. Early nutritional guidance may reduce PGS, which results in improving QOL of patients who underwent gastrectomy for gastric cancer.
A7-4: Venous invasion as a putative risk factor for recurrence following adjuvant chemotherapy in Stage III gastric cancer
Keiji Nishibeppu, Shuhei Komatsu, Daisuke Ichikawa, Taisuke Imamura, Toshiyuki Kosuga, Kazuma Okamoto, Hirotaka Konishi, Atsushi Shiozaki, Hitoshi Fujiwara, Eigo Otsuji
Division of Digestive Surgery, Department of Surgery, Kyoto Prefectural University of Medicine

**Introduction:** Although adjuvant chemotherapy after curative gastrectomy has been performed as a standard treatment for stage II-III gastric cancer (GC) in Japan, patients with stage III GC still have a high incidence of recurrence and a poor prognostic outcome. The aim of this study was to investigate risk factors for recurrence in patients with Stage III GC treated by adjuvant chemotherapy after curative gastrectomy.

**Methods:** A total of 97 patients with pathological Stage III GC, who had undergone adjuvant chemotherapy after curative gastrectomy between 2001 and 2014, were enrolled in this study. We retrospectively analyzed their hospital records from our hospital.

**Results:** Univariate and multivariate analyses for relapse-free survival (RFS) revealed that venous invasion (v+) was an independent factor predicting a shorter RFS (v+ vs. v−, 36.5% vs. 47.4%, P = 0.034, HR=1.82 95% CI: 1.01-3.37). Venous invasion also predicted a shorter overall survival (OS) (v+ vs. v−, 33.7% vs. 50.4%, P = 0.027). Regarding the patterns of recurrence, hematogenous recurrence occurred in patients with v+ gastric cancer significantly more than in those without (P = 0.022). Stage III gastric cancer with venous invasion is a high risk subgroup for hematogenous recurrence after curative surgery followed by adjuvant chemotherapy.

**Conclusions:** Stage III GC patients with venous invasion are a high-risk subgroup for hematogenous recurrence following adjuvant chemotherapy after curative surgery. More intensive and effective adjuvant chemotherapy for Stage III GC patients with venous invasion should be considered to improve their outcomes.

A7-5: The value of gastrectomy in gastric cancer patients with distant metastasis: comparison with gastrojejunal bypass
Daiki Matsubara, Hirotaka Konishi, Daisuke Ichikawa, Toshiyuki Kosuga, Shuhei Komatsu, Atsushi Shiozaki, Takeshi Kubota, Hitoshi Fujiwara, Kazuma Okamoto, Eigo Otsuji
Division of Digestive Surgery, Department of Surgery, Kyoto Prefectural University of Medicine

**Introduction:** Patients who have gastric cancer with distant metastasis are not eligible for the radical resection. Therefore, surgical therapy for patients with metastatic gastric cancer is still debatable. The aim of this study is to investigate whether gastrectomy or gastrojejunal bypass contributes to prognosis in patients with metastatic gastric cancer.

**Methods:** A total of 92 patients with metastatic gastric cancer who underwent surgery in our institution between 2006 and 2015 were retrospectively analyzed. 92 patients were divided into two groups, gastrojejunal bypass (B-group: n=27) and gastrectomy (G-group: n=65), and the characteristics of patients and their prognoses were compared between the two groups.

**Results:** No significant difference was observed regarding age, surgical T and N stage, histological type and the frequency of postoperative chemotherapy between the two groups. The primary lesion located in the middle and lower third of stomach and multisite distant metastasis were significantly frequent in the B-group (P<0.0001, P=0.0001). Preoperative serum albumin level, hemoglobin level and tumor marker were almost similar between the two groups. Operative time was longer and intraoperative blood loss was higher in the G-group (P<0.001). The 3-years overall survival rate was significantly better in the G-group (P=0.0049). Univariate and multivariate analyses revealed that age (0.0147), N stage (P=0.0282), postoperative chemotherapy (P=0.0278) and type of surgery (P=0.0012) were significant prognostic factors.

**Conclusion:** This retrospective study suggests that simple gastrectomy in the patients with metastasis may improve their prognoses if the primary lesion is resectable.
**A8-1: Clinical utility of ramucirumab for unresectable or metastatic gastric cancer: a single center experience**

Tomoki Konishi, Toshiyuki Kosuga, Daisuke Ichikawa, Shuhei Komatsu, Kazuma Okamoto, Hirotaka Konishi, Atsushi Shiozaki, Hitoshi Fujiwara, Katsutoshi Shoda, Tomohiro Arita, Ryo Morimura, Yasutoshi Murayama, Yoshiaki Kuriu, Hisashi Ikoma, Masayoshi Nakanishi, Eigo Otsuji

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

**Introduction:** Ramucirumab has recently been used for unresectable or metastatic gastric cancer. This study examined the clinical utility of ramucirumab in patients with gastric cancer based on our experience of use.

**Methods:** The safety and efficacy of ramucirumab was retrospectively analyzed in 11 patients with unresectable or metastatic gastric cancer who were treated with ramucirumab at our institute.

**Results:** Patient backgrounds were as follows: Male/ female = 9/ 2, median age: 70 years (range: 60-85). ASA-PS 0/ 1 = 6/ 5, HER2 positive/ negative =1/ 10, primary treatment: S1/ SP / SP + trastuzumab/ SOX/ CapeOX / DS = 1/ 5/ 1/ 2/ 1/ 1, metastatic sites: local/ lymph node/ liver/ lung (pleura)/ peritoneum = 1/ 4/ 1/ 2/ 3. The median administration cycle was 6 (range: 2-24). The best evaluations of images were CR/ PR/ SD/ PD = 1/ 1/ 3/ 6: thus, response rate was 18.2%, and disease control rate was 45.5%. Grade 3 neutropenia was found in 8 cases, and managed with dose reductions or discontinuation of paclitaxel. Hypertension was found in 3 cases, and treated with antihypertensive drugs. Proteinuria was found in 1 case, and managed with discontinuation of ramucirumab. No severe events such as intestinal perforation and thrombosis were not observed. The overall survival was 10 months (range:7-20), and the progression-free survival was 7 months (range: 3-20).

**Conclusion:** Ramucirumab is useful for the treatment of unresectable and metastatic gastric cancer in terms of its safety, efficacy, and high continuation rates.

**A8-2: Resected gastric cancer complicated with Leriche syndrome**

Taichi Mafune, Shinya Mikami, Asako Fukuoka, Osamu Saji, Tsunehisa Matsushita, Takeharu Enomoto, Takehito Otsubo

Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine

Leriche syndrome is a chronic abdominal aortic occlusive disease. We encountered a case of gastric cancer with Leriche syndrome, therefore we consider the case in light of the available literature.

A 73-year-old man had been followed for Leriche syndrome. Due to development of anemia, he underwent upper gastrointestinal endoscopy for evaluation of the cause of anemia and was given a diagnosis of gastric cancer. The clinical stage was T4aN1M0 Stage IIIA. We carefully evaluated the surgical tolerability of the patient and performed distal gastrectomy and D2 lymphadenectomy after suspending anti-platelet therapy. Laparotomy was performed by an upper abdominal midline incision to avoid damage of collateral circulation to the lower extremities, with careful manipulation of the abdominal wall and shortening of operation time. Although the patient initially experienced wound dehiscence on post-operative day (POD) 1, the post-surgical course was favorable and anti-platelets therapy was resumed from POD 3. The patient was discharged from hospital on POD 16.

In patients with Leriche syndrome, blood supply to the pelvic organs and lower extremities is maintained by collateral circulation, and organ damages are frequently seen. In addition, perioperative anti-platelets therapy affects surgical outcomes. Therefore, a cautious and well-prepared abdominal surgical plan, including operative procedures and perioperative management, is essential.
A8-3: Value of PET-CT on staging of gastric cancer
Toshiyuki Kosuga, Michihiro Kudou, Daisuke Ichikawa, Takeshi Kubota, Shuhei Komatsu, Kazuma Okamoto, Hirotaka Konishi, Atsushi Shiozaki, Hitoshi Fujiwara, Katsutoshi Shoda, Tomohiro Arita, Ryo Morimura, Yasutoshi Murayama, Yoshiaki Kuriu, Hisashi Ikoma, Masayoshi Nakanishi, Eigo Otsuji
Division of Digestive Surgery, Department of Surgery, Kyoto Prefectural University of Medicine

Introduction: The present study aimed to investigate the value of PET-CT on staging of gastric cancer (GC).
Methods: One hundred nineteen patients with clinically diagnosed advanced GC who had undergone PET-CT and subsequent gastrectomy were included. The correlations between FDG uptake in gastric tumor or lymph nodes and pathological stage or patient survivals were retrospectively examined by univariate and multivariate analyses.
Results: FDG uptake of gastric tumor or lymph nodes were observed in 85 cases (71.4%) or 25 cases (21.0%), respectively. Lymph node metastasis was found in 76 patients (63.8%); thus, the sensitivity and specificity by PET-CT diagnosis were 22.4% and 81.4%, respectively. In the survival analyses, neither FDG uptake in gastric tumor nor lymph nodes were significant prognostic factors. Meanwhile, FDG uptake of gastric tumor was correlated to pStage III-IV with high sensitivity (sensitivity 81.3%, specificity 35.2%), and FDG uptake of lymph nodes was related to pStage III-IV with high specificity (sensitivity 31.3%, specificity 85.9%). Furthermore, univariate and multivariate analyses showed that FDG uptake in gastric tumor (Odds ratio 2.888, 95%CI 1.160-7.846, p=0.021) or lymph nodes (Odds ratio 4.194, 95%CI 1.603-11.55, p=0.003) were independent predictors of pStage III-IV.
Conclusion: FDG uptake in gastric tumor and/or lymph nodes could be useful selection criteria of patients with Stage III-IV GC, who had better be treated with more aggressive adjuvant therapies such as neoadjuvant chemotherapy.

A8-4: Clinical utility of circulating cell-free Epstein–Barr virus DNA in patients with gastric cancer
Katsutoshi Shoda1, Daisuke Ichikawa1, Yuji Fujita1,2, Kiyoshi Masuda2, Hidekazu Hiramoto1, Junichi Hamada1, Tomohiro Arita1, Hirotaka Konishi1, Toshiyuki Kosuga1, Shuhei Komatsu1, Atsushi Shiozaki1, Kazuma Okamoto1, Issei Imoto2, Eigo Otsuji1
1) Division of Digestive Surgery, Department of Surgery, Kyoto Prefectural University of Medicine
2) Department of Human Genetics, Graduate School of Biomedical Sciences, Tokushima University

Introduction: Recent comprehensive molecular subtyping of gastric cancer (GC) identified Epstein–Barr virus (EBV)-positive tumors as a subtype with distinct salient molecular and clinical features. In this study, we aimed to determine the potential utility of circulating cell-free EBV DNA as a biomarker for the detection and/or monitoring of therapeutic response in patients with EBV-associated gastric carcinoma (EBVaGC).
Methods: The EBV genes-to-ribonuclease P RNA component H1 ratios (EBV ratios) in the GC tumors and plasma samples were determined by quantitative real-time polymerase chain reaction in 153 patients with GC, including 14 patients with EBVaGC diagnosed by the conventional method.
Results: Circulating cell-free EBV DNA was detected in 14 patients with GC: the sensitivity and specificity of detection were 71.4% (10/14) and 97.1% (135/139), respectively. Plasma EBV ratios were significantly correlated with the size of EBVaGC tumors, and the plasma EBV DNA detected before surgery in EBVaGC cases disappeared after surgery. Patients with EBVaGC may have a better prognosis, but circulating cell-free EBV DNA had no or little impact on prognosis. In addition, repeated assessment of the plasma EBV ratio in EBVaGC showed a decrease and increase in plasma EBV DNA after treatment and during tumor progression/recurrence, respectively.
Conclusion: These results suggest the potential utility of circulating cell-free DNA to reveal EBV DNA for the identification of the EBVaGC subtype and/or for real-time monitoring of tumor progression as well as treatment response in patients with EBVaGC.
A8-5: Investigation of the indications for conservative therapy to treat perforated gastroduodenal ulcers
Kazuya Niwa, Shinya Mikami, Takeharu Enomoto, Takehito Otsubo
Department of Gastrointestinal and General Surgery, St. Marianna University School of Medicine

**Introduction:** We use the criteria reported by Watanabe et al. to determine the treatment plan for patients with perforated gastroduodenal ulcers to determine whether they should undergo surgery. However, we believe that we performed an excessive amount of surgery as we found some cases in which the perforation was already covered and therefore could have been managed conservatively.

**Methods:** We analyzed 117 cases of perforation.

**Results:** From the 117 subjects with perforated gastroduodenal ulcers, we combined the 13 subjects in the conservative group and the 19 subjects in the covered perforation group to form a new conservative group comprising 32 subjects and assigned the remaining 84 subjects in the non-covered perforation group to the true surgical treatment group. There was a statistically significant difference between the Watanabe scores. We confirmed four items for which a significant difference was observed, and all four were risk factors, namely: time from onset to initial examination was within 6 hours, symptoms of peritoneal irritation were localized to the epigastrium, progression of ascites was limited to the epigastrium, and no severe concomitant disease. We predict that it will be effective to provide weighting for each item in such a way that enables a more definitive method of determining treatment.

**Conclusion:** We established a new scoring system based on the outcomes of this investigation, which simplified the previous scoring system, and we believe that this new system will be useful to further increase the precision of determining the indications for surgery.
**B1-1: The safe resection of liver parenchyma in laparoscopic surgery by CUSA with soft coagulation technique**  
Jun Yoshino, Daisuke Ban, Atsushi Kudo, Minoru Tanabe  
Department of Hepatobiliary and Pancreatic Surgery, Tokyo Medical and Dental University

**Introduction:** In laparoscopic liver resection, safe dissection of liver parenchyma under control of bleeding is essential technique. There have been various techniques for liver dissection, including crush and clamping, CUSA and so on. We used Cavitron Ultrasonic Surgical Aspirator (CUSA). At the same time of activating CUSA, and electricity with soft coagulation mode carried from the tip of CUSA. This method enables to fracture the parenchyma of liver with coagulation. In addition, the low air way pressure, the low infra vena cava pressure, proper abdominal pressure and pringle maneuver are needed.

**Methods:** Between April 2000 and June 2016, 142 patients underwent laparoscopic liver resection. In 2013, we introduced this dissection method. The preceding terms was defined as a period between 2000 and 2012, while the latter terms w defined as a period between 2013 and 2016.

**Results:** The operative time median was 240 minutes (123-633) in the preceding terms, and it was longer in the latter terms with 327 minutes (83-567). (p = 0.010). Because the major hepatectomy were more included in the latter terms. The blood loss was less in the latter terms, 200 mL and 110mL, repectively. (p=0.0030) The postoperative hospital days were also shorter in the latter terms, 8 days and 7days, respectivley. (p=0.006)

**Conclusion:** Although the indication of liver resection was extended in the latter terms, the amount of bleeding decreased as the liver dissection procedure was stabilized. We consider the CUSA conducting the soft coagulation energy is one of useful techniques for stable liver dissection under control of bleeding.

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**B1-2: Laparoscopic left hemihepatectomy by dorsal approach**  
Manami Doi, Goro Honda, Masahiko Honjo, Yuki Homma, Yoshihiro Hirata  
Department of Surgery, Tokyo Metropolitan Cancer and Infectious Disease Center Komagome Hospital

**Introduction:** We report our standardized procedure for laparoscopic left hemihepatectomy utilizing laparoscopic-specific view from caudodorsal side.

**Methods:** A trocar for scope was placed at the umbilicus, and four working trocars were placed just beneath the costal arch of the right abdomen, right hypochondrium, median epigastrium and left hypochondrium, respectively. After dissection of the left coronal ligament, the left lateral segment was lifted and the parenchyma above the Arantius duct was divided exposing the middle hepatic vein (MHV) from the root side toward the periphery. The left Glissonean pedicle was isolated at the peripheral side of the Arantius plate and divided by linear stapler safely because its back side had been opened widely. After that, the parenchyma between the demarcation line on the liver surface and exposed MHV was divided. Finally, the left hepatic vein was cut at the confluence to the MHV by linear stapler.

**Results:** Between November 2010 and December 2015, we performed laparoscopic left hemihepatectomy in 11 patients. The mean operative time was 309 minutes with a mean blood loss of 170g. There was no intraoperative transfusion. The mean length of postoperative hospital stay was 9 days. There was no operative morbidity or mortality.

**Conclusion:** Because the Arantius duct is close to the MHV, early exposure of the MHV from the dorsal side makes laparoscopic left hepatectomy more feasible, by securing safety during dividing the left Glissonean pedicle with a stapler and identifying the MHV as a significant landmark to make an appropriate cutting surface.
B1-3: Successful resolution of a delayed bile leakage developed 14 months after major hepatectomy: A case report
Junji Maehara, Sojun Hoshimoto, Hirofumi Shirakawa, Moriaki Tomikawa, Iwao Ozawa, Shoichi Hishinuma, Yoshiro Ogata
Department of Hepato-Biliary-Pancreatic Surgery, Tochigi Cancer Center, Utsunomiya

Bile leakage is a major complication after hepatectomy and usually occurs in early postoperative period. We present herein a case of delayed bile leakage which developed 14 months after major hepatectomy and successfully treated using percutaneous intraabdominal and transhepatic biliary drainage (PTBD). A 73-year-old man presented to another hospital due to right hypochondriac pain and referred to our hospital. The patient underwent a right hepatectomy for hepatocellular carcinoma (HCC) 14 months before presentation. The postoperative course was uneventful, and the patient was discharged 18 days after surgery. An abdominal computed tomography scan at the previous hospital revealed a large subcapsular fluid at the liver cut surface without recurrence of HCC, which was compressing the liver and hepatic hilum. Laboratory test showed a high level of total bilirubin (14.3 mg/dL). Biliary fluid without infection was collected from percutaneous intraabdominal drainage and a fistulogram demonstrated an enhancement of the bile duct from stump of the right hepatic duct without any occlusion of the downstream of the bile duct. Based on the delayed spontaneous rupture of the stump of the right hepatic duct, PTBD was performed. Biliary fluid from intraabdominal drainage tube remarkably decreased and the hyperbilirubinemia was improved after PTBD. There have been few reports of delayed bile leakage more than a year after hepatic resection, particularly without infection or any occlusions of the downstream of the bile duct.

B1-4: Spontaneous regression of hepatocellular carcinoma
Koji Nogaki, Masahiko Murakami, Takeshi Aoki, Kosuke Yamada
Department of Gastrointestinal and General surgery, Showa University

Introduction: Spontaneous regression of hepatocellular carcinoma (HCC) without any pretreatment or angiography is rare. We present a rare case of spontaneous complete regression of HCC, as confirmed after hepatectomy.

Results: The patient, a 67-year-old, previously healthy woman, was referred to our hospital for confirmation of suspected HCC. Abdominal ultrasonography detected a low echoic mass in segment 8 (S8) of the liver about 6cm. CT imaging showed that the tumor was well enhanced in the arterial phase and washed out in the portal and delayed phases. Four months later, CT imaging showed that the tumor had decreased in size about 4cm, and serum PIVKA-II level was decreased to the normal range. (528.0mAU/ml to 18.0mAU/ml). Spontaneous regression of the HCC was considered; however, as we could not exclude viable malignant cells in the tumor, we performed right lobectomy of the liver. Histopathological findings showed only granulation and necrotic tissue accompanied by bleeding and hemosiderosis. No viable tumor cells were observed.

Conclusion: If spontaneous regression has occurred, there is a possibility of HCC recurrence and of remnant viable tumor cells. We present a rare case of complete spontaneous complete regression of HCC.
B1-5: A case of spontaneous rupture of liver hemangioma in a teenage boy
Mamoru Ishikawa, Hisayuki Iwamoto, Tomohiro Sato, Miki Mori, Norimasa Yoshida, Akitoshi Sasamoto
Department of Surgery, Ichinomiyanishi Hospital

Hemangioma is the most common benign tumor of the liver and it is often asymptomatic. Spontaneous or traumatic rupture, intratumoral bleeding, consumption coagulopathy, and rapid growth are mandatory surgical indications. We report a case of giant hemangioma of hepatic segments VI and VII. An 18-year-old boy was admitted as an emergency patient to our institution for severe pain in the upper abdomen, which had occurred suddenly without a history of recent traumas. At admission a physical examination revealed severe aching pain in the upper abdomen and abdominal bloating. Hematochemical tests showed mild anemia (hemoglobin 12.2g/dl), leukocytosis (17500/μl), and slightly high transaminase level (aspartate aminotransferase 59; alanine aminotransferase 67). A computed tomography (CT) scan demonstrated perihapatic effusion, and a large ovoidal mass of 10cm in the longest diameter, nonhomogeneous, encapsulated, involving the right hepatic lobe. A diagnosis of hepatic angiomatosis with a rupture of the large hemangioma localized in segments VI and VII was made. Selective hepatic angiography was considered, but the patient underwent an emergency surgery because residual liver function would be normal. There was a lot of clotting blood although the tumor wasn’t actively bleeding into the peritoneum during surgery. After performing the Pringle maneuver, a right hepatic lobectomy was successfully performed. The histological findings revealed a liver hemangioma. The postoperative course was uneventful and the patient was discharged in the 11th postoperative day. Although a spontaneous rupture of liver hemangioma is very rare especially in a teenage patient, it has a high mortality rate. We present a case and a review of the literature.

B2-1: Precise and accurate laparoscopic hepatectomy in a non-bloody surgical area
Shin Nakahira1,2), Tomoya Kishimoto1), Toshimitsu Irei2), Masashi Inoue2), Nobutaka Hatanaka2), Hiroki Ohzato1)
1) Department of Surgery, Sakai City Medical Center
2) Department of Surgery, Kure Medical Center

Introduction: The development of energy devices with coagulation technology has opened the doors for laparoscopic hepatectomy. However, the thermal effects can lead to postoperative complications like biliary tract stenosis or bile leakage.

Methods: We employ the clash and clamping method under inflow occlusion for parenchymal transection. Previously, hepatic parenchyma was clashed by activated bipolar forceps, BiClamp. Although this method enabled superior hemostasis, deep and diffuse thermal damage often occurred at the cut surface. The energy device was changed to ultrasonic laparoscopic coagulating shears (LCS). The hepatic parenchyma was clashed in a non-active state. Therefore, small vessels were recognized clearly among the raw parenchyma and could be resected without switching to another device.

Results: From July 2014 to August 2016, 110 cases of pure laparoscopic hepatectomy were performed in our hospital. As for operative variables, the median operative duration was 255 minutes, the median amount of bleeding was 50 cc, and the median post-operative hospital stay was 8 days. 10 cases of postoperative complications over grade 3 according to the Clavien-Dindo classification and 1 case of mortality were seen. The current method represents significantly shorter operation time and less blood loss than the previous method. All the patients were discharged earlier in the current method group.

Conclusion: Our current crush and clamping method using LCS may improve clinical outcomes of laparoscopic hepatectomy.
**B2-2: Safely expanding of the laparoscopic liver resection according to difficulty scoring system**  
Daisuke Ban, Jun Yoshino, Toshiro Ogura, Kosuke Ogawa, Hiroaki Ono, Yusuke Mitsunori, Atsushi Kudo, Minoru Tanabe  
Department of Hepatobiliary and Pancreatic Surgery, Tokyo Medical and Dental University  

**Introduction:** Recently, the proportion of major laparoscopic liver resection (LLR) cases has been gradually increasing. It is fair to say that the LLR procedure as a whole is still developing. An objective index system that reflects different degrees of difficulty of various LLR techniques would be useful from an educational point of view that aims to disseminate and further develop LLR.  
We appraised the difficulty scoring system for laparoscopic liver resection the following five factors from preoperative information in order to score difficulty levels: 1) tumor location, 2) extent of liver resection, 3) tumor size, 4) proximity to major vessels, and 5) liver function. Surgical outcomes of LLR by one surgeon from the introduction period to the current period were analyzed according to DSS.  

**Methods:** Between July 2010 and December 2016, a single surgeon performed 65 LLRs. Of those, consecutive 58 LLRs without biliary tract surgery were analyzed.  

**Results:** The operation time of the introduction period (n=10), the intermittent period (n=20), the current period (n=28) were 308, 305, 306 minutes, respectively. Likewise, the blood loss had tendency to be reduced followed as 404, 279, 114mL, respectively. Whereas, the DSS was increasing with time: 3.20, 4.15, and 4.36, respectively. There were no operative complications beyond the Clavien-dindo grade IIIa. The median of hospital days were 7 days (range 4-17 days). The 30 and 90 days operative mortality is zero.  
In terms of the patient protection, if massive blood loss (> 500 mL) or unexpected conversion to open surgery might be considered as the cases to be avoided, there were 3 cases (DSS:5,6,3) in the introduction period, 3 cases in the intermittent period, and a case in the current period (DSS:5).  

**Conclusion:** DDS is useful guideline to the step by step educational program for LLR. It may contribute the safe introduction and step-up of LLR, avoiding to overextend themselves.

**B2-3: Pringle maneuver is an effective method for laparoscopic liver resection**  
Hirofumi Shirakawa, Junji Maehara, Sojunn Hoshimoto, Moriaki Tomikawa, Iwao Ozawa, Shoichi Hishinuma  
Department of Surgery, Tochigi Cancer Center  

**Introduction:** Pringle maneuver has already spread widely as an effective method to decrease blood loss during open liver resection. We evaluated the efficacy of this procedure during laparoscopic approach.  

**Methods:** We retrospectively analyzed 72 patients who underwent Laparoscopic liver resection (LLR) with partial or left lateral sectionectomy between 2008 and 2016. Pringle maneuver with extracorporeal tourniquet for laparoscopic liver resection has been introduced from 2013 in our institution and 31 patients have undergone the procedure. Using 6 parameters, we performed 1:1 propensity score matching between the Pringle and non-Pringle groups. Subsequently, 20 patients were included in each group and these two groups were compared with respect to operative short-outcomes, changes in liver functions, and complications.  

**Results:** There was no statistically significant difference between the two groups regarding intraoperative blood loss, the rate of complications, and the length of hospital stay. But the changes of postoperative hemoglobin, platelet counts and serum albumin level showed a better improvement in the Pringle than that in the non-Pringle group.  

**Conclusion:** Pringle maneuver can be also effective for LLR and may improve postoperative recovery in major LLR such as a hemihepatectomy.
**B2-4**: Laparoscopic repeat hepatectomy for liver metastasis from rectal cancer after open hepatectomy

Fumihiko Ando\(^1\), Yoichi Kawano\(^1\), Satoshi Matsumoto\(^1\), Nobuyuki Sakurazawa\(^1\), Akihisa Matsuda\(^1\), Kazuya Yamahatsu\(^1\), Shinichiro Kanaka\(^1\), Shigeki Yokomuro\(^1\), Masao Miyashita\(^1\), Eiji Uchida\(^2\)

\(^1\) Department of surgery, Nippon medical school Chiba Hokusoh Hospital
\(^2\) Department of surgery, Nippon medical school

**Background:** The number of repeat hepatectomy for liver metastasis from colorectal cancer is currently increasing because the cancer incident rate is also increasing in Japan. For repeat hepatectomy after open hepatectomy, the re-open hepatectomy would be selected because the operation might be very difficult due to the adhesions around the liver. **Case:** We report a case of successful laparoscopic repeat hepatectomy for recurrent liver tumor after laparoscopic low anterior resection for rectal cancer followed by open S4, 5, 7, 8 partial resections of the liver for liver metastases. Eight months later, a recurrence lesion near the surface of S3 segment as 1 cm in diameter was detected by follow up CT and the laparoscopic partial resection was selected for the repeat hepatectomy because of the tumor status. During the operation, there were not so severe adhesions because we have attached an anti-adhesion material to abound the liver at the former operation because of expecting of repeat hepatectomy. The laparoscopic liver resection could be safely done with minimal adhesiolysis, duration time of 215 minutes and very small amount of bleeding. The patient had uneventful postoperative course and discharged 6 days after surgery. **Conclusion:** Most of hepatectomy potentially have chances of repeat hepatectomy in the future. Although it depends on the status of the recurrent liver tumor, laparoscopic repeat liver resection could be safely done with less invasiveness and might be the feasible strategy for it even in a patient with history of open hepatectomy.

**B2-5**: Tips for the safe approach in laparoscopic liver resection of segment 7 and 8

Toshiro Ogura, Daisuke Ban, Jun Yoshino, Kosuke Ogawa, Hiroaki Ono, Yusuke Mitsunori, Atsushi Kudo, Minoru Tanabe

Department of Hepatobiliary and Pancreatic Surgery, Tokyo Medical and Dental University

**Introduction:** Laparoscopic liver resection of segment 7 and 8 is difficult to approach. In order to easily perform liver resection with good operative field, it is necessary to devise the operative position, the procedure of right liver mobilization, and access port setting.

**Methods:** Between April 2000 and June 2016, 142 patients underwent laparoscopic liver resection. The preceding terms was defined as a period between 2000 and 2012, while the latter term was defined as a period between 2013 and 2016.

**Results:** In the preceding terms and the latter terms, 65 patients and 77 patients underwent laparoscopic liver resection, respectively. Of these patients in each periods, liver resection of segment 7 and 8 were performed in 6 patients (9.2%) and 22 patients (28.6%), respectively. The indications were extended in the latter terms. (p=0.003) On the other hand, the operative time median was 240 minutes (123-633) in the preceding terms, and it was longer in the latter terms with 327 minutes (83-567). (p = 0.010). The blood loss was less in the latter terms, 200 mL and 110mL, respectively. (p=0.0030) The postoperative hospital days were also shorter in the latter terms, 8 days and 7days, respectively. (p=0.006)

**Conclusion:** By taking experience, surgical techniques have improved and surgical results improved. Although laparoscopic liver resection to segment 7 and 8 were difficult, we were able to overcome by devising the procedure.
**B3-1:** Curative treatment of hepatocellular carcinoma (HCC) - single centre prospective study comparing transplantation, resection and ablation  
Adam Bartlett  
New Zealand Liver Transplant Unit and Department of General Surgery, Auckland City Hospital, New Zealand

**B3-2:** Therapeutic options and outcomes of congenital extrahepatic portosystemic shunt  
Soichi Narumoto¹, Seisuke Sakamoto¹, Akinari Fukuda¹, Takanobu Shigeta¹, Hajime Uchida¹, Kengo Sasaki¹, Osamu Miyazaki², Shunsuke Nosaka², Mureo Kasahara¹  
¹ Organ Transplantation Center, National Center for Child Health Development  
² Department of Radiology, National Center for Child Health Development

**Background:** Congenital extrahepatic portosystemic shunt (CEPS) is a splanchnic venous anomaly which bypasses the liver and drains into the systemic circulation. SMA angiography under shunt vein occlusion could provide intrahepatic portal flow visualization and shunt closure is now more selected as a curative treatment than liver transplantation.  

**Methods:** From 2002 to 2017, 32 CEPS patients were examined by our current strategy. We performed angiography under shunt occlusion to visualize intrahepatic portal system (IHPS) and categorized into three types: mild, moderate, and severe. If portal vein pressure (PVP) did not increase over 25mmHg, shunt closure by radiological or surgical interventions were indicated.  

**Results:** Mean patients’ age was 5.6 yrs. 13 males and 19 females. Fourteen patients (43.8%) were diagnosed by neonatal screening test for galactosemia. Others were diagnosed by hepatic dysfunction in 6, heart disease in 6, hepatopulmonary syndrome (HPS) in 4, hyperammonemia in 1, and others in 1. IHPS were classified into mild in 12, moderate in 16, and severe in 4. PVP measurement under shunt occlusion test indicated 24 cases (75.0%) for shunt closure, consisting of 11 (91.7%) in mild, 12 (75%) in moderate, and 1 (25%) in severe (p=0.39). Shunt closure therapies were successfully performed in 23 cases (95.8%). One case with severe type was treated by liver transplantation for accompanying HPS.  

**Conclusions:** IHPS classification correlates with PVP and success rate of shunt closure therapy. Our therapeutic strategy can be a feasible approach for CEPS patients.
**B3-3: Experience of living donor liver transplantation for polycystic liver disease-a case report**

Hisako Aihara, Yoshihito Kotera, Akiko Oomori, Syunichi Ariizumi, Satoshi Katagiri, Hiroto Egawa, Masakazu Yamamoto
Department of Surgery, Institute of Gastroenterology, Tokyo Women’s Medical University

**Introduction:** Polycystic Liver Disease (PLD) is basically benign disease. But Patients sometime suffered dyspnea due to increasing size of cysts. Moreover, infection is occurred in the cyst made liver dysfunction. In these reasons, it is difficult to manage patients with PLD. Here we show the case underwent LDLT for the patient with PLD even patients suffered cyst infection repeatedly.

**Case:**
The patient is a 66-year-old man with PLD. He was given a diagnosis of PLD more than ten years ago. Recently, size of cysts were increased and infection to cysts occurred so he was referred to our hospital. He received percutaneous abscess drainage few times and medication of antibiotics frequently before he arrived at our hospital. So we decided to perform LDLT because of difficulty of control infection and symptoms. Before LDLT we make sure negative outcome of blood bacterial test. After LDLT we felt some difficulty to control infection, and some reoperation for peritonitis was needed. But his general course was good after that. (Discussion) Control infection and symptoms are difficult for the patients with PLD especially a patient with cyst infection. LDLT is a one of the option for a patient with PLD even with cyst infection.

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**B3-4: Living donor liver transplantation for Wilson disease-associated acute liver failure**

Yu Huang, Akihiko Soyama, Masaaki Hidaka, Shinichiro Ono, Tomohiko Adachi, Takashi Hamada, Koji Natsuda, Mitsuhisa Takatsuki, Susumu Eguchi
Department of Surgery, Nagasaki University Graduate School of Biomedical Sciences

**Introduction:** Wilson disease is characterized as the dysfunction of copper metabolism, and well known as the cause of chronic liver failure. Here we report a rare case of acute liver failure associated with Wilson disease, which underwent living donor liver transplantation (LDLT).

**Case Report:** A 17-year-old female developed acute onset of high fever, diarrhea and severe jaundice of greater than 50 mg/dl in total bilirubin. The liver dysfunction had never been pointed out before. Diagnosis of Wilson disease was made with the findings as follows: high excretion of copper in the urine (10,603 μg/day, normal <100 μg/day), low serum ceruloplasmin level (15 mg/dl, normal >20mg/dl) and Kayser-Fleischer corneal ring. The model for end-stage liver disease (MELD) score was 31, and she developed encephalopathy as grade 2. LDLT was performed utilizing right liver graft, and donor was her 44-year-old mother. The weight of right liver was 740g, equivalent to 63.4% of recipient standard liver volume. There were 2 major hepatic veins as right hepatic vein and right inferior vein, and both of them were reconstructed. She developed severe liver dysfunction due to hepatic vein compression, and successful stenting was performed 8 days after LDLT. Simultaneously, she developed renal failure which required hemodialysis. Thereafter, the liver and renal functions improved gradually and hemodialysis was finally weaned on POD49 after LDLT. She was discharged 114 days after LDLT, and currently doing well with good liver and renal functions, with excretion of copper in the urine 76 μg/day.

**Conclusion:** LDLT was effective also for acute liver failure, associated with Wilson disease.
B3-5: The case of liver re-transplant surgery by using the middle colic artery for hepatic artery reconstruction
Satoshi Nemoto, Yoshihito Kotera, Arizumi Shun-ichi, Akiko Omori, Shingo Yamashita, Hiroto Egawa and Masakazu Yamamoto
Department of Gastroenterology Surgery, Tokyo Woman’s Medical University

Case Presentation
The case is presented of a 23-year-old female patient suffering from chronic rejection after living donor liver transplantation for biliary atresia in 1995. From 2013, the patient was suffered from liver dysfunction and since then, her liver condition became worse eventually. The result of the biopsy in 2014 reviewed accumulation of the inflammatory lymphocytes, hepatocyte ballooning and apoptosis, which indicated acute hepatitis and emergence of donor specific antibody. Biopsy result in 2015 reviewed exacerbation of portal vein fibrosis (F3) and indicated chronic rejection. In 2016, dilatation of the bile duct was seen in CT and this bile duct engagement portal vein, makes portal vein aneurysm then liver dysfunction, then she underwent percutaneous transhepatic cholangio drainage (PTCD). Last September, her MELD score was elevated to 24, Child Pugh score was 13, then she underwent diseased donor liver transplantation last October.

Her liver was adhered with every tissue, especially the portal vein(PV) forms aneurysm about 43mm in diameter. Artery dissection from portal vein was one of the most difficult point and we did as carefully as possible however this maneuver made artery internal layer injury. Following hepatectomy, we reconstructed inferior vena cava(IVC) with piggy back technic. Next we reconstructed PV interposition using donor iliac vein graft following resection of the PV aneurysm. Then we reconstruct hepatic artery with middle colic artery since injury of original hepatic artery internal layer. Hepatic artery reconstruction with transverse colon artery is exceedingly rare, we couldn’t research any case report in pubmed.

B4-1: A case of adult pancreatoblastoma with long-term survival
Yushi Kaisyakuji1), Teijirou Hirashita1,2), Hiroomi Takayama1), Masayuki Ohta1), Kazuhiro Tada1), Kunihiro Saga1), Yuichi Endo1), Hiroki Uchida1), Yukio Iwashita1), Masafumi Inomata1)

1) Department of Gastroenterological and Pediatric Surgery, Oita University Faculty of Medicine
2) Center for Community Medicine, Oita University Faculty of Medicine

Pancreatoblastoma is a rare primary pancreatic neoplasm that predominantly occurs in young children. We experienced a case of pancreatoblastoma occurring in a 79-year-old man, who have survived without recurrence for 4 year.

A pancreatic tumor was accidentally found when he was admitted for the treatment of bronchopneumonia. The tumor was revealed a well-circumscribed and heterogeneous mass in the pancreas body by abdominal computed tomography, and preoperatively diagnosed as neuroendocrine neoplasm or acinar cell carcinoma. After distal pancreatectomy, pathological examination showed characteristic findings of pancreatoblastoma. The tumor formed acinar structures and contained many “squamoid nests,” which are defining features of pancreatoblastoma. The postoperative course was uneventful, and he had no recurrence for 58 months.

To date, a total of only 42 cases of adult pancreatoblastoma have been reported in the literatures, and this case represents the eldest patient with pancreatoblastoma. Our case suggests that it is very difficult to diagnose pancreatoblastoma preoperatively, and pancreatoblastoma has to be included in differential diagnoses for a pancreatic tumor presenting atypical imaging features.
**B4-2: A case of total pancreatectomy for acinar cell carcinoma of the pancreas with intraductal growth**

Kenta Katsumata\(^1\), Shinjiro Kobayashi\(^1\), Tatsunori Ono\(^1\), Kohei Segami\(^1\), Hiroyuki Hoshino\(^1\), Masafumi Katayama\(^1\), Satoshi Koizumi\(^2\), Masayuki Takagi\(^2\), Takehito Otsubo\(^1\)

\(^1\) Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine

\(^2\) Department of Pathology, St. Marianna University School of Medicine

A 78-year-old woman visited our hospital complaining chiefly of epigastric pain for several months. Abdominal contrast computed tomography revealed a heterogeneous tumor 42x59 mm in size with a clear boundary in the pancreas tail but with poor contrast effect. EUS and MRI both revealed a suspected tumor cap in the main pancreatic duct in the pancreas head. We performed pancreatic juice cytology by ERP and diagnosed Class V adenocarcinoma. However, because imaging did not reveal a typical pancreatic cancer, we decided to perform total pancreatectomy, considering the pancreatic ductal tubular papillary tumor, papillary ductal mucinous adenocarcinoma, and mixed-type neuroendocrine tumor. At surgery, we found no organ or lymph node metastases, and because the main tumor showed expansive growth, we only performed total pancreatectomy. Macroscopically, the solid tumor occupied the tail of the pancreatic body. Histologically, tumor cells with eosinophilic vacuoles proliferated mainly in the pancreatic duct and were positive for Bcl-10 by immunohistochemical staining. The MIB-1 index was about 30%. Also, synaptophysin, chromogranin A, CD10 and β catenin were negative. We diagnosed pT3N0M0-fStageIIA pancreatic acinar cell carcinoma with tumor cap developing in the pancreatic duct.

Usually pancreatic acinar cell carcinoma grows expansively compared to ordinary pancreatic duct carcinoma, and invasion into the main pancreatic duct is rare. In this case, an expansive tumor penetrated the capsule and the peripheral pancreatic duct, forming a tumor cap in the main pancreatic duct. We report a rare case in Japan of total pancreatectomy to treat pancreatic acinar cell cancer with pancreatic duct invasion.

**B4-3: Two cases of pancreaticoduodenal artery aneurysm resulting in acute retroperitoneal hemorrhage**

Ryota Sakon, Yusuke Tomiyama, Yuki Tomizawa, Takahiro Inoue, Shun Sato, Masataka Oneyama, Manabu Amiki, Ryo Ota, Kazuhiro Narita, Manabu Goto, Masato Yamazaki

**Department of Surgery, Kawasaki Saiwai Hospital**

**Introduction:** Abdominal visceral aneurysms account for about 0.1 - 0.2% of all aneurysms, about 2% of these are pancreaticoduodenal aneurysms, which are extremely rare. Such aneurysms are caused by infection, pancreatitis, arteriosclerosis, trauma, celiac artery (CA) stenosis, and segmental arterial mediolysis (SAM). We report two pancreaticoduodenal aneurysm rupture cases treated by transcatheter arterial embolization (TAE). **Case1:** A 48-year-old man presented with sudden umbilical pain. An aneurysm of the inferior pancreaticoduodenal artery (IPDA) and a retroperitoneal hematoma were confirmed by contrast computed tomography (CT); the patient also had CA stenosis. Urgent abdominal angiography examination was performed. There was no extravasation, and TAE of the IPDA aneurysm was performed. **Case2:** A 57-year-old woman presented with sudden epigastric pain. Contrast CT revealed a beaded anterior superior pancreaticoduodenal artery (ASPDA) and a retroperitoneal hematoma were confirmed by contrast computed tomography (CT): the patient also had CA stenosis. Urgent abdominal angiography examination was performed. There was no extravasation, and TAE performed for the ASPDA aneurysm.

**Discussion:** Most cases of pancreaticoduodenal artery aneurysms are diagnosed post-rupture. Accordingly, the mortality rate is about 50%. Case 1 was diagnosed as median arcuate ligament syndrome (MALS). The CT showed characteristic CA stenotic findings. Case 2 was diagnosed as SAM. Pathological specimen could not be obtained, but the clinical diagnostic criteria were met. The treatment of this disease is emergency TAE or laparotomy. Since the amount of bleeding was limited in the retroperitoneal region, TAE could safely be performed and the patient survived. We report two cases of pancreaticoduodenal aneurysm with different etiologies.
**B4-4: A case of acute superior mesenteric artery occlusion rescued with IVR**
Yoshitsugu Tsukamoto, Hiroyuki Negishi, Yuta Ogura, Asako Fukuoka, Takayuki Asano, Ryoji Makizumi, Satoshi Tsukikawa, Takehito Otsubo
Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine

Early diagnosis and early treatment of superior mesenteric arterial occlusive disease combined with superior mesenteric artery thrombosis and superior mesenteric arterial embolism have a good prognosis without deteriorating QOL. However, early acute superior mesenteric artery occlusion may visit with mild abdominal pain alone in some cases, making it difficult to diagnose early. It is a serious disease leading to death by delayed treatment.

I experienced a case of lifesaving by early diagnosis and treatment, so I will report with some literature consideration.

The case is 70 years old man. In June 2016, he visited with a stool of bloody mass, he was acutely diagnosed with mesenteric artery occlusion, diagnosis of suspected small intestine necrosis, and difficulty with previous doctor by pretreatment CT examination, which we introduced to our hospital. It is within 24 hours of onset, IVR enforces urgent IVR by choosing thrombus removal and lysis as treatment. I removed the thrombus as much as possible with IVR and confirmed reregeneration of superior mesenteric artery. Subsequently, dissolution therapy with continuous administration of urokinase was started. Ultrasonography of the superior mesenteric artery was performed on the 1st and 2nd disease days, although a thrombus was observed, the reduction tendency. Thrombus could not be pointed out on the third day of illness. Oral ingestion started on day 5 of disease. Discharged on the 17 of sick day. Currently undergoing outpatient clinics with anticoagulant medicine.

I experienced a case of lifesaving by early diagnosis and IVR.

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**B4-5: A case of gallbladder bleeding associated with microscopic polyangitis**
Daichi Kitaguchi, Masanao Kurata, Osamu Shimomura, Kazuhiro Takahashi, Shinji Hashimoto, Tatsuya Oda, Nobuhiro Ohkohchi
Department of Gastrointestinal and Hepato-Biliary-Pancreatic Surgery, Faculty of Medicine, University of Tsukuba

**Introduction:** Gallbladder bleeding is a rare condition with incidence of less than 1% of upper gastrointestinal bleeding. Although the major cause of gallbladder bleeding is hemorrhagic cholecystitis, gallbladder bleeding can develop from vasculitis secondary to systemic collagen disease. Here, we report a case of gallbladder bleeding associated with microscopic polyangitis (MPA).

**Case:** A 71-year-old man with a 6-year history of MPA was admitted to our hospital with a chief complaint of upper abdominal pain and nausea.
CT with iv contrast revealed extravasation of the contrast in the gallbladder. We started conservative treatment because of no evidence of cholecystitis. However, his anemia had progressed, and we performed emergent laparoscopic cholecystectomy on the following day.
Intraoperative findings revealed remarkably distended gallbladder due to clots inside, however the cholecystitis itself was not significant.
Pathological findings showed necrosis of the gallbladder wall secondary to vasculitis. On the other hand, infiltrations of inflammatory cells were slight at the area of the gallbladder without bleeding.
Postoperative course was uneventful without major complications.

**Conclusion:** MPA is a type of ANCA-associated vasculitis (AAV).
To the best of our knowledge, this is the first report of gallbladder bleeding associated with MPA, and the second report of gallbladder bleeding associated with AAV.
From our experience and previous literatures, conservative therapy for gallbladder bleeding associated with AAV usually fail, since hemostasis on its own can’t be expected. Instead, it is necessary to perform surgical treatment promptly.
B5-1: Laparoscopic and robotic central pancreatectomy  
Chang Moo Kang  
Division of Hepatobiliary and Pancreatic surgery, Department of Surgery, Yonsei University College of Medicine, Seoul, Korea

Pancreas is very specialized organ with both important digestive and endocrine functions. Therefore, when considering operative approach to pancreatic diseases, surgeons and medical doctors always need to consider the quality of life after surgery. Especially, in case of benign and low grade malignant pancreatic lesions, these patients are expected for long-term survival. Not only oncologic concept but also functional outcome should be considered in designing surgical modality. With the advance of laparoscopic and robotic surgical experiences, function-preserving minimally invasive approach will be ideal option for them.

It is not that easy to decide which surgical options would be appropriate when treating benign and low grade malignant tumor near the neck of the pancreas. In theory, as suggested above, minimally invasive central pancreatectomy would be ideal approach, but this option is thought to be one of the challenging surgical procedures, especially taking potential risk of postoperative pancreatic fistula into account. In this presentation, current Yonsei clinical practice of laparoscopic and robotic central pancreatectomy in patients requiring for central pancreatectomy.

B5-2: Clinical outcomes of 16 consecutive patients who underwent laparoscopic insulinoma resection: The usefulness of monitoring intraoperative blood insulin during laparoscopic pancreatectomy  
Takashi Ono, Yoshiharu Nakamura, Akira Matsushita, Tetsuya Shimizu, Eiji Uchida  
Department of Gastrointestinal and Hepato-Biliary-Pancreatic Surgery, Nippon Medical School

Introduction: Insulinoma is a very serious functional tumor. Surgeons should confirm complete resection of insulinomas before completing the operation, even in laparoscopic surgery.

Methods: Between August 2007 and June 2016, 16 consecutive patients with biochemical evidence of an insulinoma underwent laparoscopic pancreatectomy. Intraoperatively, a peripheral arterial blood sample was taken, and insulin was measured by quick insulin assay. Insulin levels were determined before anesthesia induction, every 30 min thereafter, and every 30 min for at least 1 h after tumor resection to confirm insulin levels did not increase before surgery was completed.

Results: All 16 patients (4 men and 12 women, average age 57.0 years) successfully underwent laparoscopic resection. One patient had two tumors, and the remaining 15 patients had one tumor each (four in the head, five in the body, and eight in the tail of the pancreas). Preoperative localization and regionalization studies identified the tumor correctly through CT (13/16 [81.3%]), MRI (10/13 [76.9%]), angiography (12/14 [85.7%]), endoscopic ultrasonography (8/11 [72.7%]), and selective arterial calcium injection (15/15 [100%]). Intraoperative ultrasonography detected 13 of 15 tumors (86.7%), and intraoperative blood insulin monitoring confirmed the complete resection of 17 of 17 tumors (100%). All patients were discharged with normal insulin levels and have been followed up for 8–109 months. There has been no recurrence of symptoms in any patients and none has died.

Conclusion: Complete removal of an insulinoma can be reliably predicted by intraoperative blood insulin monitoring even in laparoscopic pancreatectomies.
B5-3: Outcome of laparoscopic distal pancreatectomy; comparison between spleen-preserving and en-bloc splenectomy
Masahiro Iseki, Masaharu Ishida, Takanori Morikawa, Tatsuyuki Takadate, Kei Nakagawa, Hiroki Hayashi, Fuyuhiko Motoi, Takeshi Naitoh, Michiaki Unno
Department of Surgery, Tohoku University Graduate School of Medicine

Introduction: Laparoscopic distal pancreatectomy (LDP) is now the standard treatment for low-malignant tumor in the pancreas body or tail. Although many institutes perform laparoscopic spleen-preserving distal pancreatectomy (LSPDP), its benefit is still controversial. The aim of this study is to compare LSPDP with laparoscopic distal pancreatectomy with splenectomy (LDSP) in the light of safety.

Methods: We evaluated the characteristics and the operative outcomes of all patients who underwent LSPDP or LDSP at our institution from July 2009 to January 2017.

Results: We performed 55 LDPs (LSPDP, n = 12; LDSP, n = 43) during the study period. There was no significant difference in the characteristics such as age, sex, body mass index and ASA score. The operation time of LSPDP was significantly longer than LDSP (LSPDP, 470 ± 43 minutes; LDSP, 352 ± 22 minutes, p=0.018), meanwhile blood loss of each group was similar (LSPDP, 203 ± 74 ml; LDSP, 207 ± 39 ml, p=0.96). Only 1 patient who received LSDP was converted to open surgery because of strong adhesion. The rate of postoperative complications, including pancreatic fistula were not significantly different between the 2 groups. Splenic infarction was not observed in all patients at the time of discharge. The length of hospital stay was not different significantly (LSPDP, 19.3 ± 3.8 days; LDSP, 17.5 ± 2.0 days, p=0.69). Ten of 12 patients who were treated by LSPDP, were histologically diagnosed as NET.

Conclusion: According to our data, LSPDP seems to be a safe and equivalent to LDSP.

B5-4: The original criteria of drain removal reduced postoperative complication after pancreatectomy
Hisashi Kosaka, Sohei Satoi, Hiroaki Yanagimoto, Tomohisa Yamamoto, Satoshi Hirooka, So Yamaki, Masaya Kotsuka, Hironori Ryota, Yoichi Matsui, Masanori Kon
Department of Surgery, Kansai Medical University

Aims: Since 2012, we introduced original criteria of early drain removal after pancreatectomy to achieve safe postoperative management. In this study, we retrospectively verified its preventive effect of severe postoperative complications.

Methods: The postoperative data of our consecutive 801 patients who underwent pancreatic surgery during recent decade were assigned to two groups: recent 406 patients who applied criteria and 395 patients who did not applied criteria. A detail of criteria is both amylase level of drainage fluid (dAMY) under 5000 U/L on postoperative day (POD) 1 and dAMY under 3000 U/L on POD 3. If criteria was satisfied, drain was removed on POD 3. The Clavien-Dindo score from gradeⅢb to Ⅴ were categorized as severe complication in this study.

Results: There were no significance between two groups in backgrounds. After introducing the criteria, a rate of severe complication was significantly decreased to 2.7 from 6.3%. A rate of Clavien-Dindo grade V which denoted death by postoperative complication was significantly decreased to 0.5 from 2.5%. A rate of re-drainage after early drain removal was also statistically decreased to 5.7 from 9.6%. In subgroup analysis of 36 patients who developed severe postoperative complication, a rate of patient who required re-drainage after early drain removal was significantly decreased to 18.2 from 32.0%.

Conclusions: These results indicated that introducing the criteria could realize appropriate patient selection for early drain removal. Consequently, it might contribute to reduce severe postoperative complication derived from un-drained intra-abdominal abscess.
B5-5: Conversion surgery in initially unresectable pancreatic cancer in our facility
Chie Takishita, Yuichi Nagakawa, Yuichi Hosokawa, Yatsuka Sahara, Tomoki Shirot, Tetsushi Nakajima, Yosuke Hijikata, Hiroaki Osakabe, Kazuhiko Kasaya, Kenji Katsumata, Akihiko Tsuchida
Department of Gastrointestinal and Pediatric Surgery, Tokyo Medical University

Introduction: There are some reports about long survival cases because of conversion surgery after chemotherapy or chemoradiation, even though it is diagnosed as unresectable pancreatic cancer (UR) at the time of initial diagnosis. We examined the outcome of the cases of conversion surgery diagnosed as UR at first in our department.

Methods: 19 patients who underwent Conversion Surgery after diagnosing and treating UR from Feb 2010 to December 2016 (metastatic: 6 cases, locally advanced: 13 cases) was examined retrospective for the treatment outcome.

Results: Average age of patients was 67.1 years (43-79) male / female ratio: 7/12, tumor location head / tail part: 13/6, the primary treatment was GS-IMRT 8 cases, GS 2 cases, GEM + nabPTX 9 cases. The average time to operation was 5.6 months (2-15 months), the operation methods were PD / DP / TP 11/6/2, and the portal vein resection was 6 cases. Postoperative complications were Clavian Dindo (IIIa and above): 1 chyle and 1 abdominal abscess, pancreatic fistula Grade C was in 1 case. Therapeutic effect in pathologicak findings, Evans classification I / IIa/Ib / III were 4/9/1/2 cases and 3 cases were under diagnosis. The R0 ratio was 81.6 %. 8 cases of postoperative recurrence, recurrence part were Liver metastasis/Peritoneal dissemination/Lymph node/Local. Median survival time was 27.5 month.

Conclusion: Even in the case of unresectable pancreatic cancer at first, some case that long-term survival can be obtained by conducting Conversion Surgery by treatment. Further examination is necessary after collection of cases in the future.

B6-1: Well differentiated neuroendocrine tumors of the pancreas: is there a place for laparoscopic resection in multidisciplinary approach even in case of metastatic disease?
Dario Gherardi
Department of Surgery, Centre Hospitalier Wallonie Picarde, Tournai, Belgium

Background: Neuroendocrine tumors (NETs) of the pancreas are rare, heterogeneous and indolent neoplasms which may be amenable of minimally invasive surgery. Resection of the primary tumor has been proposed as a possible treatment to improve survival even in case of concomitant unresectable liver metastases.

Materials and methods: we herein present a series of 3 consecutive laparoscopic distal pancreatectomy (LDP) and splenectomy with regional lymph node excision performed at our Institution between August 2009 and November 2014. Patients’ mean age was 40 years (min 28, max 56): there were 2 females and 1 male, and average BMI was 32 (min 26, max 40). Preoperative workup included blood tests with mean serum chromogranin A level of 180 ng/mL (range 86-254), multiphasic computed tomography and endoscopic ultrasound. All pancreatic lesions were located distally and their largest diameter was 2, 2.5 and 5 cm. Octreotide scan was performed only in 2 cases. Preoperative biopsy-results were consistent with the diagnosis of NET. Neoadjuvant chemotherapy was administered in 2 patients because of unresectable multiple and bilobar liver metastases. The decision to perform a LDP was then reached following a multidisciplinary discussion based on the indolent clinical course of the tumors.

Results: All procedures were carried out laparoscopically with mean operative time of 256 minutes. Histology confirmed the diagnosis of nonfunctioning primary NET in all cases, G1 (in 2) and G2 (in 1) according to the W.H.O. classification. Average postoperative length of stay was 11 days (range 8-15). Type IA pancreatic leak was encountered in one patient. Postoperative mortality was nihil. Patients with liver metastases were treated by adjuvant chemotherapy and therefore by liver transplant in an other Institution.
**B6-2: Clinical outcomes of distal pancreatectomy with en bloc celiac axis resection for locally advanced pancreatic cancer**

Atsuhiko Ueda, Nozomu Sakai, Hideyuki Yoshitomi, Hiroaki Shimizu, Katsunori Furukawa, Tsukasa Takayashiki, Shigetsugu Takano, Satoshi Kuboki, Daisuke Suzuki, Shingo Kagawa, Hiroyuki Nojima, Isamu Hosokawa, Masayuki Ohtsuka  
Department of General Surgery, Graduate School of Medicine, Chiba University

**Introduction:** Several authors have reported the survival benefit of distal pancreatectomy with en bloc celiac axis resection (DP-CAR) for locally advanced pancreatic cancer. However, the true contribution of this procedure haven't become clear yet because of the small number of those reports.

**Methods:** Thirty one patients with pancreatic body–tail cancer underwent DP-CAR from January 2004 to July 2015. Clinicopathological factors and short- and long-term outcomes of these patients were analyzed retrospectively.

**Results:** Neoadjuvant chemotherapy (NAC) was performed in 24 patients (77.4%) and preoperative coil embolization was performed in 23 patients (74.2%). Concomitant portal vein resection was performed in 16 patients (51.6%). The median tumor size was 4.4 cm and lymph node metastasis was observed in 24 patients (77.4%). R0 resection rate was 41.9%. Postoperative ischemic gastropathy was observed in 4 of 13 patients (30.8%) who underwent gastroscopy after operation. Liver infarction was observed in 8 patients (25.8%). Although the morbidity rate of Clavien–Dindo grades III to V was relatively high (67.7%), the mortality rate was 0%. The median survival time (MST) and 1- and 3-year overall survival rates from operation were 23.7 months and 74.2% and 34.4%, respectively. From initial diagnosis, the MST of patients with NAC was significantly better than that of patients without NAC (35.3 months vs 17.1 months, p = 0.033).

**Conclusion:** DP-CAR improves the survival of patients with locally advanced pancreatic cancer, especially when it is combined with NAC.

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**B6-3: Significance of neoajuvant chemotherapy in podoplanin-positive cancer associated fibroblast in pancreatic cancer stroma**

Tomoharu Miyashita, Hidehiro Tajima, Mitsuyoshi Okazaki, Takahisa Yamaguchi, Sinichi Nakanuma, Isamu Makino, Hironori Hayashi, Hiroyuki Takamura and Tetsuo Ohta  
Department of Gastroenterological Surgery, Kanazawa University Hospital

**Background:** Podoplanin (D2-40), a type I transmembrane sialoglycoprotein, expression in cancer-associated fibroblasts (CAF's) was reported to be involved in poor prognosis of several cancers. Podoplanin elicits powerful platelet aggregation and is the endogenous ligand for the platelet C-type lectin receptor, CLEC-2, which itself regulates podoplanin signalling. Our previous study demonstrated that extravasated platelet aggregation is detected at the invasive front of the tumor in pancreatic stroma which was the epithelial–mesenchymal transition portion. We investigated the immunohistochemical effects of neoajuvant chemotherapy in CAFs with pancreatic cancer stroma.

**Materials and Methods:** A total of 55 patients were enrolled in this study. The effect on the tumor stroma was examined by D2-40 expression using immunohistochemistry. They were compared in a group of untreated specimens, specimens treated with conventional gemcitabine (GEM) alone, GEM plus S-1 and GEM plus Nab-paclitaxel (n-PTX).

**Results:** In immunohistochemistry, podoplanin expression was mainly located near cancer cells in CAF. The podoplanin expression was observed in 20% cases in the n-PTX plus GEM treated group with markedly low expression. However, the expression of podoplanin were observed in the untreated (86%), conventionally treated GEM alone (63%) and GEM plus S-1 control group (61%).

**Conclusion:** This data suggests that the n-PTX plus GEM regimen may decrease podoplanin –positive CAFs contents through pancreatic stromal depletion.
B6-4: Platelet-lymphocyte ratio in advanced pancreatic ductal carcinoma
Masahiko Kawaguchi, Karin Sadamura, Yoshitaka Iwaki, Masataka Tochimoto, Yuta Horiguchi, Hideaki Kato, Kanae Tawaraya, Toru Watanabe, Osamu Hosokawa
Department of Surgery, Yokohama Sakae Sakaie Hospital

Introduction: Recent studies implied relationships between malignant tumor and inflammatory marker. Platelet-lymphocyte ratio (PLR), neutrophil-lymphocyte and CRP was considered as prognostic factor of malignant tumor. However, such markers are not specific for malignancy; additionally, changes of those markers in each patient during treatment of malignant tumor are unknown. Then, the present study conducted to reveal relation between such inflammatory markers and advanced pancreatic cancer.

Methods: Locally advanced or recurrent pancreatic ductal carcinoma, which were diagnosed by pathologically, were evaluated, and their therapeutic periods for cancer were more than 1 year. All the laboratory data of them in our institute were gathered and analyzed.

Results: Three patients were studied. The first patient was a 73-year-old male, who had pancreaticoduodenectomy for pancreatic head cancer and chemotherapy for recurrent tumor for 2 years. The second was a 72-year-old male, who had distal pancreatectomy for pancreatic body cancer. He had positive peritoneal cytology then stage IV, and combined modality therapy were performed. The last was a 56-year-old male, who was detected pancreatic cancer with liver metastasis during check-up for autoimmune pancreatitis. His laboratory data were available in 6 years before the cancer detection. From their data, tumor markers were useful progression marker of pancreatic cancer. However, PLR and other inflammatory markers were not related with tumor progression during clinical course.

Conclusion: PLR must be useful prognostic marker in pancreatic cancer. However, the variable would not be just related with tumor progression. Therefore, patients with high PLR could have initiation or promotion ability of malignancy.

B6-5: Prognostic impact of histological heterogeneity in pancreatic cancer
Katsutoshi Shoda1), Hisashi Ikoma1), Ryo Morimura1), Tomohiro Arita1), Toshiyuki Kosuga1), Hirotaka Konishi1), Yasutoshi Murayama1), Shuhei Komatsu1), Atsushi Shiozaki1), Yoshiaki Kuriu1), Masayoshi Nakanishi1), Daisuke Ichikawa1), Hitoshi Fujiwara1), Kazuma Okamoto1), Satoru Yasukawa2), Akio Yanagisawa2), Eigo Otsuji1)
1) Division of Digestive Surgery, Department of Surgery, Kyoto Prefectural University of Medicine
2) Department of Pathology, Kyoto Prefectural University of Medicine

Background: Pancreatic cancer (PC) tissues sometimes present with histological heterogeneity within individual tumors. We investigated the clinicopathological characteristics and prognostic significance of histological heterogeneity in patients with PC.

Methods: We enrolled 155 patients with PC, who underwent macroscopically curative resection. The pure-type group was defined as patients who only had 1 histological component, and the mixed-type group was defined as patients who had a mixture of >1 histological component.

Results: The overall prevalence of histological mixed-type in PC was 29.0% (45/155). Recurrence-free and overall survival rates were significantly lower in the patients with histological mixed-type than in those with pure-type (P < 0.0001 and P = 0.0008, respectively; log-rank test), and multivariate analysis using Cox regression procedures revealed that the presence of mixed-type pancreatic cancer was an independent predictor of poor prognosis (P = 0.0037). Regarding recurrence, the frequency of hematogenous metastasis was significantly higher in patients with mixed-type PC than in those with pure-type.

Conclusion: We found that histological mixed-type cancer was associated with malignant outcomes and early recurrence in PC and believe that it would be useful as an indicator of poor prognosis.
B7-1: Usefulness of positron emission tomography for intraductal papillary mucinous neoplasms
Kunihiro Saga, Teijiro Hirashita, Masayuki Ohta, Kazuhiro Tada, Hiroomi Takayama, Yuichi Endo, Hiroki Uchida, Yukio Iwashita, Masafumi Inomata
Department of Gastroenterological and Pediatric Surgery, Oita University Faculty of Medicine

**Introduction:** Treatments for intraductal papillary mucinous neoplasms (IPMNs) based on the 2012 International Consensus Guidelines have been performed. Moreover, many preoperative examinations, such as endoscopic ultrasonography and peroral pancreatoscopy, are useful for determining optimal managements of patients with IPMNs. However, we sometimes encounter the patients with IPMNs whose optimal managements are difficult to determine. We investigated usefulness of preoperative examinations, containing the positron emission tomography with computed tomography (PET/CT), to diagnose benign or malignant lesion.

**Methods:** From 2005 to 2016, records of 57 patients with IPMNs who underwent pancreatectomy were retrospectively reviewed. The relationship between preoperative findings and malignancy of IPMNs were investigated.

**Results:** PET/CT was performed in 22 of the 57 patients (39%). Postoperative diagnosis was adenoma (IPMA) in 24 patients (42%) and adenocarcinoma (IPMC) in 33 (58%). Univariate analysis showed that tumor in pancreatic body or tail, mix type (main and branch duct type), enhancing mural nodule, dilatation of the bile duct, and positive PET/CT were significantly concerned with IPMC. PET/CT was positive in 2 of 7 patients with IPMA (29%) and in 15 of 15 patients with IPMC (100%). All patients with negative PET/CT were diagnosed as IPMA, and sensitivity of PET/CT for diagnosis of IPMC was 100%. Dilatation of main pancreatic duct and cytology positive were not significantly concerned with IPMC.

**Conclusion:** PET/CT is useful for preoperative identification of IPMC, especially to decide the treatment strategy, surgery or follow-up.

B7-2: Validation of guideline and evaluation of operative outcome in intraductal papillary mucinous neoplasm of pancreas
Department of Surgery, Nagasaki University Graduate School of Biomedical Sciences

**Introduction:** Guideline of intraductal papillary mucinous neoplasm (IPMN) was revised in 2012. The aim of this study is to evaluate the operative validity and outcome of IPMN in our institute.

**Patients and method:** Total 98 IPMN patients who had undergone pancreas resection from 1997 to 2016 were reviewed retrospectively.

**Results:** Pathologically, 80% of cases were diagnosed as benign IPMN (invasive IPMN vs minimally invasive IPMN vs high grade dysplasia of IPMN vs IPMA = 9 (9%) vs 10 (10%) vs 21 (21%) vs 58 (59%) respectively). Five-year recurrence free survival in high grade dysplasia and minimally invasive were 100% respectively, and seemed to be same entity clinically. Although the ratio of high risk stigmata (HS) defined in 2012 guideline was 41% (40/98), its sensitivity, specificity and positive predictive value to predict pathological malignant IPMN was definitively poor as 74%, 67% and 35% respectively.

**Conclusion:** Oncological outcome of minimally invasive IPMN was acceptable, and diagnostic accuracy of HS to predict pathological malignant IPMN including minimally invasive was unsatisfactory. Therefore, definition of HS should be revised to be stricter.
B7-3: Analysis of long term survival of pancreatic cancer at our hospital
Mamiko Miyashita, Yasuhiro Morita, Hideharu Shimizu, Tatsuya Hayashi, Kijuro Takanishi
Department of Surgery, Tokyo Metropolitan Tama Medical Center

Introduction: Most patients with pancreatic cancer are expected to die from the disease. Surgical resection offers the only chance of a cure. Unfortunately, the patients’ prognosis is poor, even for those undergoing a complete (R0) resection. We retrospectively analyzed patients with pancreatic cancer who survived longer than five years.

Methods: We conducted a comprehensive survey of patients with invasive ductal carcinoma of the pancreas, who underwent surgical resection of their lesion between January 2001 and December 2011 at our hospital.

Results: Eighteen patients who survived longer than five years following surgical resection of the lesion were found. Their median survival time was six years. The results of the pathological diagnosis were as follows: well-differentiated tubular adenocarcinoma (tub 1) was diagnosed in ten patients; moderately differentiated tubular adenocarcinoma (tub 2) was diagnosed in seven patients; and mucinous adenocarcinoma (muc) was diagnosed in one patient. The disease was pathologically diagnosed as stage Ia, IIa, IIb, and III in two, five, four, and seven patients, respectively (Japan Pancreatic Society (JPS) classification 7th edition). Postoperatively 16 patients received adjuvant chemotherapy (seven received gemcitabine, two received S-1, six received gemcitabine plus S-1, and one received 5-FU via the hepatic artery). Two patients received no treatment. Seven patients with stage III pancreatic cancer survived longer than five years; all of these patients had received chemotherapy (two, four, and one patient had received gemcitabine, gemcitabine plus S-1, and 5-FU via the hepatic artery, respectively).

Conclusion: Postoperative adjuvant chemotherapy may be associated with survival beyond five years in pancreatic cancer patients.

B7-4: Difficulties in the surgical management of chronic pancreatitis after choledochojejunostomy for a bile duct stricture: A case report
Masato Yamazaki, Yuki Tomizawa, Ryota Sakon, Takahiro Inoue, Shun Sato, Masataka Oneyama, Manabu Amiki, Ryo Ohta, Kazuhiro Narita, Manabu Goto
Department of Surgery, Institute of gastroenterology, Kawasaki Saiwai Hospital

In cases of chronic pancreatitis, it is important to monitor for malignancies that may occur in patients with bile duct strictures. Herein we report a case of suspected cancer in a 69-year-old man with chronic pancreatitis. The patient presented with epigastralgia and back pain that started in mid-May 2016. He had a long history of treatment for alcoholic chronic pancreatitis since 2000. He received an endoscopic bile duct stent in 2002, a metallic stent in June 2004, and choledochojejunostomy in August 2008. Dynamic computed tomography showed an increase in the size of the pancreatic calculus, further swelling of the pancreas head, and portal vein stenosis. Diffusion-weighted magnetic resonance imaging indicated the possibility of malignancy, but we suspected pancreatitis. During the ERCP, the duodenal papilla was villous and elevated. Biopsy of the papilla showed atypical cells. After the patient and his family were informed of our findings, the patient elected to undergo surgery.

Intraoperative pathology did not show any signs of malignancy. Because of the extent of inflamed adhesions and the negative findings for malignancy, we performed a pancreatic calculus extraction and pancreatic duct drainage. The patient’s postoperative course was uneventful and without delayed gastric emptying. The patient was discharged on the 24th postoperative day. Three months later, magnetic resonance imaging showed no malignant findings.

In this case, the patient’s clinical course was favorable. However, it will be important to carefully monitor the patient for any future signs of malignancy.
B7-5: Reconstructive gastric tube-preserving, radical pancreatectoduodenectomy for IPMN after esophagectomy: Report of a case
Rei Okada, Masaru Tsuchiya, Yuichiro Otsuka, Jun Ishii, Toshio Katagiri, Tetsuya Maeda, Yoshihisa Kubota, Hironori Kaneko
Department of Gastroenterological Surgery, Toho University Omori Medical Center

Pancreatectoduodenectomy (PD) is a radical treatment for pancreatic head tumors. However, it is sometimes difficult to perform PD, particularly in patients who have previously undergone esophagectomy with gastric tube reconstruction. A 71-year-old female with a previous history of thoracoscopic esophagectomy and gastric tube reconstruction with hand-assisted laparoscopic surgery for esophageal cancer was referred for surgical treatment of IPMN. Abdominal ultrasonography showed main pancreatic duct type IPMN of 6 mm and branch type IPMN of 23 mm of the pancreatic head area; these sizes had been bigger than 1 year ago. Moreover, more than 2 mm size, some mural nodule in the main pancreatic duct of the pancreatic head was found. Contrast ultrasonography showed enhancing mural nodule. These findings diagnosed suspicious malignant behavior. Based on the consideration for both the tumor curability and preservation of the gastric tube, we performed a pylorus-preserving PD, and also preserved GDA, rt GEA and GEV meticulously. The total duration of the operation was 7 h, and the estimate blood loss was 150 ml. This radical PD with microvascular preservation was safely and successfully performed, thus, reconstructive gastric tube was preserved certainly. Histopathological findings were low grade intraductal papillary mucinous adenoma. Postoperative course was uneventful, and discharged from hospital at postoperative day 14. In conclusion, this case demonstrated that performing PD with reconstructive gastric tube-preserving was a feasible option that did not compromise the curability of the tumor resection.

B8-1: Laparoscopic resection of the extrahepatic bile duct for congenital biliary dilatation
Tatsuyuki Takadate, Takanori Morikawa, Masamichi Mizuma, Masaharu Ishida, Masahiro Iseki, Kyohei Ariake, Shimpei Maeda, Kunihiro Masuda, Takeshi Aoki, Koji Fukase, Hideo Ohtsuka, Naoaki Sakata, Kei Nakagawa, Hiroki Hayashi, Fuyuhiko Motoi, Takeshi Naitoh, Michiaki Unno
Department of Surgery, Tohoku University Graduate School of Medicine

Introduction: Congenital biliary dilatation (CBD) is more prevalent in Asian countries than in Western countries, and is more commonly diagnosed in young women. Since patients with CBD have a high rate of biliary tract cancers, surgery should be performed. Laparoscopic resection of the extrahepatic bile duct (LREBD) for CBD is a good indication in terms of minimally invasive. We introduced LREBD for CBD in 2011.

Methods: We investigated the usefulness of LREBD for CBD. The indication of LREBD for CBD in our institution is Todani's classification Type Ia and Ic. We compared laparoscopic resection with open resection of the extrahepatic bile duct for patient's characteristics, surgical and postoperative factors.

Results: Eighteen cases that performed resection of the extrahepatic bile duct from 2011 to 2016 were investigated. The number of cases was 11 cases in the laparoscopic group and 7 cases in the open group. The open group was significantly younger than the laparoscopic group (p=0.037). Body Mass Index was lower in the open group than in the laparoscopic group (p=0.005). Todani's classification was different between 2 groups (p=0.001) because open group included type IV. Blood loss was less in the laparoscopic group than in the open group (p<0.001). Operation time and complications were not different significantly. Postoperative hospital stay was more likely to be shorter in the laparoscopic group than in the open group.

Conclusion: LREBD for CBD can be performed safely and may be useful.
B8-2: Clinical outcome of consecutive adult patients with choledochal cysts managed by laparoscopic resection and Roux-en-Y hepaticojejunostomy
Takahiro Haruna, Tetsuya Shimizu, Yoshiharu Nakamura, Tomohiro Kanda, Hiroyasu Furuki, Akira Matsushita, Eiji Uchida
Department of Gastrointestinal and Hepato-Biliary-Pancreatic Surgery, Nippon Medical School

Introduction: In Japan, laparoscopic management for patients with choledochal cyst (CC) has been approved and covered by the National Health Insurance System of Japan since April 2016. The purpose of this study was to evaluate the feasibility and safety of laparoscopic surgery for CC in adults.

Methods: Five Japanese patients with CC (26-41 years old, 4 women and 1 man, type I n=4; type IV n=1), who consecutively underwent laparoscopic operation between May-September 2016, were enrolled. From a review of literature published from January 2000 to October 2016, the results from five papers which reported multiple cases (7 to 55 cases) were summarized.

Results: Operating time ranged from 328-506 min. Blood loss ranged from 0-150 mL and no intraoperative complication occurred. Postoperative complications were observed in two cases and could be well managed conservatively. Postoperative hospital stay ranged from 10-32 days, with the length of stay of 10-12 days in all except the 2 cases with postoperative complications. No morbidity after hospital discharge was reported in any case. From a review of the medical literature, in most facilities, this surgical method was predominantly performed on young female patients with type I cysts. Average operation time was 247-593 minutes, and average bleeding volume was 15-434 ml. Rate of conversion to open was 0-37.5%. Average hospital stay was 5.3-25 days. Morbidity was observed in 12.9-28.6% cases, and mortality was 1.8% in one paper, and 0% in the other four.

Conclusion: Laparoscopic resection of CC and hepaticojejunostomy in adults are safe and feasible.

B8-3: The analysis of resected cases of masquerading cholangiocarcinoma
Masahiro Shiihara1, Ryota Higuchi1, Takehisa Yazawa1, Shuichiro Uemura1, Wataru Izumo1, Yutaro Matsunaga1, Tadatoshi Kakimoto1, Toru Furukawa2, Masakazu Yamamoto1

1) Department of Surgery, Institute of Gastroenterology, 2) Department of Pathology, and International Research and Educational Institute for Integrated Medical Sciences, Tokyo Women’s Medical University

Introduction: Preoperative diagnosis of cholangiocarcinoma is sometimes difficult. Failure to differentiate malignant and benign stenosis of bile duct might result in unsuitable treatment.

Methods and Objectives: We examined the 10 cases of masquerading cholangiocarcinoma among the 434 resected cases diagnosed as perihilar or distal cholangiocarcinoma from 2001 to 2016. The 10 cases were preoperatively diagnosed as cholangiocarcinoma, however that resected specimen showed no malignancy.

Results: In 10 cases, 6 cases were men and 4 were woman. The median age was 70-year old. Six cases were found by some symptoms such as fever, abdominal pain and jaundice, 3 cases were found by abnormal hepatobiliary enzymes, the another was done by the dilatation of bile duct. In preoperative images, 2 cases had pancreaticobiliary maljunction, 5 cases had thickening of the bile duct. The level of carcinoembryonic antigen was within normal limits in all cases. Three cases needed biliary drainage preoperatively. Preoperative diagnosis were as follows; Six cases: distal cholangiocarcinoma, 4 cases: perihilar cholangiocarcinoma Four cases underwent pancreaticoduodenectomy, 4 cases did hepatectomy, resection and reconstruction of the extrahepatic bile duct, a case did extra bile duct resection, a case did papillary sphincteroplasty.

Final diagnosis were as follows: the stenosis by fibrosis and inflammation in 4 cases, adenoma in 2 cases, primary sclerosing cholangitis in a case, IgG4-related cholangitis in a case, choledocholithiasis in a case, stenosis by the hepatic cyst in a case.

Conclusion: We should do the preoperative examination and make a diagnosis of cholangiocarcinoma in consideration of some benign biliary strictures.
**B8-4: Weekly palliative chemotherapy with low-dose paclitaxel for recurrent and unresectable biliary tract cancer**


1) Departments of Gastroenterological Surgery, Graduate School of Medical Science, Kanazawa University
2) Departments of Environmental and Preventive Medicine, Graduate School of Medical Science, Kanazawa University

**Introduction:** The prognosis of patients with recurrent and unresectable biliary tract cancer (BTC) is very poor. Although gemcitabine (GEM) plus cisplatin therapy is useful for unresectable cases, the median overall survival (OS) of the patients is <1 year, and third-line chemotherapy following failure of 5 fluorouracil (5-FU) and GEM plus cisplatin is currently unavailable. The clinical efficacy and basic effects of low-dose paclitaxel (PTX) therapy for patients with BTC was previously reported. We herein present the results of a phase I clinical trial of weekly low-dose PTX as third-line palliative chemotherapy.

**Methods:** PTX was administered on days 1, 8, 15 and 22 of each cycle and repeated twice as follows: Level 1, 40 mg/m$^2$; level 2, 50 mg/m$^2$ (n=3, both level).

**Results:** During the two cycles, grade 1 or 2 adverse events were observed in 3 patients, whereas dose-limiting adverse events (grade 3 or 4) were not observed. The disease control rate was 83.3% (partial response, n=3; stable disease, n=2). The OS and median survival were 15.4 and 9.0 months, respectively.

**Conclusion:** In conclusion, palliative chemotherapy with low-dose PTX following failure of GEM and 5-FU was well tolerated, safe and effective for patients with recurrent and unresectable BTCs, and the optimal dose was 50 mg/m$^2$.

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**B8-5: A case of gallbladder volvulus difficult to treat by laparoscopic-surgery in which preoperative drainage for concurrent giant hydronephrosis enabled surgery to be performed safely**

Yuki Tomizawa, Ryota Sakon, Takahiro Inoue, Shun Sato, Masataka Oneyama, Manabu Amiki, Ryo Ohta, Kazuhiro Narita, Manabu Goto, Masato Yamazaki

Department of Surgery, Kawasaki Saiwai Hospital

**Introduction:** We performed laparoscopic cholecystectomy (LC) in an old-old patient with gallbladder volvulus and concurrent giant hydronephrosis assumed to be difficult to treat by laparoscopic surgery, and report our experience.

**Case:** The case subject was a 93-year-old female, who was examined 2 days earlier for loss of appetite, vomiting and abdominal pain, which revealed fever of 38°C with spontaneous pain and pressure pain throughout the entire upper abdomen. Upon diagnosis of acute cholecystitis, antibiotic therapy was initiated, however symptoms showed little improvement, and thus emergency surgery was performed. Surgical findings: after performing ultrasound-guided percutaneous nephrostomy to ensure the working space, LC was commenced for the giant right hydronephrosis occupying the right upper abdomen. The neck of the gallbladder was rotated 360° clockwise along the axis, and upon diagnosis of gallbladder necrosis caused by gallbladder volvulus, we removed the torsion and performed LC. Postoperative progress was good, and the subject was discharged in day 6 of hospitalization.

**Discussion:** Gallbladder volvulus is a relatively rare condition, however it can lead to necrosis due to impaired blood flow, and therefore requires urgent treatment. In the event of old-old patients, various comorbidities can make laparoscopic surgery difficult, however we were able to ensure the working space and perform surgery safely by concurrent nephrostomy.
**B8-6: A case of initially unresectable perihilar cholangiocarcinoma at diagnosis who could undergo radical surgery after chemotherapy**

Keisuke Yokoyama, Takehiro Noji, Keisuke Okamura, Kimitaka Tanaka, Yoshitsugu Nakanishi, Toshimichi Asano, Yo Kurashima, Yuma Ebihara, Soichi Murakami, Toru Nakamura, Takahiro Tsuchikawa, Toshiaki Shichinohe, Satoshi Hirano
Department of Gastroenterological surgery II, Hokkaido University Graduate school of Medicine

**Introduction:** Surgical resection is the only curative therapy for perihilar cholangiocarcinoma. Herein, we report a case of perihilar cholangiocarcinoma which was initially diagnosed to be unresectable due to locally advancement. After chemotherapy, the patient could undergo conversion surgery.

**Case:** A sixties woman was presented with elevation of biliary enzymes during follow-up period of leukocytosis. Ultrasonography revealed dilatation of the left intrahepatic bile duct and low echoic mass in segment 4 of the liver. CT shows a low density mass with poor enhancement. She was diagnosed as having perihilar cholangiocarcinoma. Because the tumor involved both the proper and the right hepatic artery, it was diagnosed as unresectable perihilar cholangiocarcinoma at the previous hospital. She received chemotherapy with gemcitabine plus cisplatin for eleven months, after that, the tumor was diagnosed as stable disease by RECIST. She was referred to our hospital for conversion surgery. She performed left hepatectomy and extrahepatic bile duct resection with concomitant right hepatic artery and portal vein resection. Although minor bile leakage occurred after surgery, she discharged on 53rd postoperative day. Histopathological examination revealed pT3, pN1, M0, pStage IVA. The efficacy of the chemotherapy was judged as Evans classification IIB. She has been well with no recurrence for 16 months after surgery.

**B9-1: Negative pressure wound therapy for the wound of stoma closure with purse string suture—Efficiency for VAC system—**

Koji Masumori, Koutarou Maeda, Tsunekazu Hanai, Harunobu Sato, Yoshikazu Koide, Hiroshi Matsuoka, Hidetoshi Katsuno, Tomoyoshi Endo, Miho Shiota,
Department of Surgery, Fujita Health University

**Introduction:** Inspite of advancement of surgery, temporary loop colostomy is often constructed after intersphincteric resection for rectal cancer. The occurrence of SSI is high after stoma closure. Therefore, purse string suture is often carried out. However, time to healing is usually long. We used negative pressure wound therapy (VAC therapy) to promote granulation formation, contraction of wound, reduction of edema, shortening of postoperative hospital stay, shortening of wound healing period, and prevention of SSI.

**Methods:** Forty patients undergoing stoma closure were randomly divided into two groups with or without VAC therapy. The suction pressure was maintained at 125 mmHg to prevent air leakage. When colostomy is closed, the volumes of the dead space and the size of the wound are measured in both groups. The same measurements were done on days 3 and 7 after closure. The days until wound closure was also examined in both groups. Outcomes were also examined according to age, BMI, operation time, bleeding volume, wound consistency, patient satisfaction, perioperative inflammatory response (white blood cell, CRP), occurrence of SSI and hospitalization days.

**Results:** There was a wound healing promoting effect by VAC therapy. Infection and anastomotic leakage occurred in each one patient. The dead space volume on the 7th day after closure was significantly less in VAC group than that in non VAC group.

**Conclusion:** VAC therapy has a wound healing promoting effect.
**B9-2: Effectiveness of NPWT for surgical wound of digestive surgery to prevent SSI**
Koichiro Kojima, Tadahiko Masaki, Kohe Takayasu, Tomokazu Kishiki, Yoshikazu Hashimoto, Yutaka Suzuki, Hiroyoshi Matsuoka, Nobutsugu Abe, Toshiyuki Mori, Masanori Sugiyama
Department of Surgery, School of Medicine, Kyorin University

**Introduction:** In gastrointestinal surgery (GI surgery), the incidence of surgical site infection (SSI) is high as compared with other surgery. Negative pressure wound therapy (NPWT) which accelerates wound healing by providing negative pressure to the wound, has been used for infected open wounds. Recently, some papers reported that NPWT is effective to prevent SSI, and there exist specialized devices for preventing SSI in US or western countries. Therefore, our original technique by using NPWT was revised to prevent SSI.

**Methods:** Sixteen patients who underwent NPWT after GI surgery in our institute were selected from January 2015 to December 2016. The course of wound closure was examined in the high risk patients of SSI after their GI operation. The wound was closed by buried dermal subcutaneous sutures at 3cm intervals. The wound was covered by NPWT at 24 hours later or more after the operation and closed by pulling out the form gradually every two or three days.

**Results:** The average age was 62 years old, and the average BMI was 25.7. The average time of using NPWT was 10 days. The average duration until the wound was completely closed was 15 days. The incidence of SSI and incisional hernia was noted only in one case out of 15 patients (6.7%) with the average follow-up period of 17.4 months.

**Conclusion:** Prophylactic use of NPWT seemed to be effective for preventing SSI in most of the cases.

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**B9-3: Study of adult postoperative inguinal hernia pain caused by surgical procedures**
Yasuhito Hisatsune¹,², Satoshi Koizumi¹, Ryuichi Oshima², Natsuko Sasaki¹, Asako Fukuoka¹, Takahiro Sasaki³, Osamu Saji¹, Yukihito Kokuba², Nobuyoshi Miyajima³, Takehito Otsubo¹

¹) Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine
²) Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine Yokohama city Seibu Hospital
³) Division of Gastroenterological and General Surgery, St. Marianna University School of Medicine Toyoko Hospital

**Introduction:** The purpose of this study was to evaluate the postoperative pain of transabdominal preperitoneal repair (TAPP) versus that of the anterior approach (AA).

**Methods:** From April 2015 to September 2016, 84 adult patients with inguinal hernia were analyzed. To calculate the intrinsic degree of pain preoperatively, the values of minimum sensed current and the corresponding pain current were measured using a perceived pain analyzer (Pain Vision™). Postoperatively, the wound pain level was calculated, and the wound pain ratio was determined from the intrinsic pain level and the wound pain level. We compared the wound pain ratio between the TAPP and AA surgical procedure. Significance was determined by a t-test.

**Results:** Of the 84 patients, 43 underwent TAPP and 41 underwent AA. The wound pain ratio, on postoperative day 1 was 201.37±29.40 vs 184.08±31.65 (p=0.69) and on day 2 was 165.10±24.84 vs 140.19±17.82 (p=0.42). No significant difference was seen in the wound pain ratio between the two groups.

**Conclusion:** The results of the present analysis indicate that there is no significant difference in postoperative pain between the TAPP and AA procedures.
**B9-4: The procedure for prevention of recurrence in TAPP**  
Minoru Imai, Takuya Yamaguchi, Yumi Ishida, Kazutaka Toyama, Keisuke Toguchi, Kenji Yoshikawa, Kouji Hazano  
Department of Surgery, Mimihara General Hospital

**Introduction:** We treat inguinal hernia by TAPP or TEP. We check whether the mesh curl up from peritoneal cavity after TEP. But all this time we can’t check whether the mesh curl up from peritoneal cavity after TAPP. We induct the procedure for checking whether the mesh curl after TAPP.

**Procedure:** When we expand the mesh in TAPP, we insert the 14G needle into the pre-peritoneal space. Then we suture the peritoneal membrane. When we finish suturing the peritoneal membrane, the 14G needle deaerate the pre-peritoneal space.

**Discussion:** We check whether the mesh curl by this easy procedure. Checking whether the mesh curl can prevent the recurrence of inguinal hernia.

**Conclusion:** We induct the procedure for checking whether the mesh curl after TAPP. Checking whether the mesh curl can prevent the recurrence of inguinal hernia.

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**B9-5: Short-term outcome of the transabdominal preperitoneal approach for inguinal hernia; a single-centered experience**  
Michio Okamoto, Kozo Kataoka, Ayana Nagamine, Yutaro Hori, Michina Morioka, Atsushi Harada, Atsuo Tokuka, Akiyoshi Kanazawa  
Department of Surgery, Shimane prefectural Central Hospital

**Introduction:** Hernia repair is one of the most common surgical procedures. The indication and generalizability of laparoscopic approach for the patients with inguinal hernia is still a subject of debate, especially at local hospital. The aim of this report was to evaluate short-term outcome of laparoscopic transabdominal preperitoneal hernia repair (TAPP) at our department which was introduced by an experienced surgeon.

**Methods:** Ninety-one patients with inguinal hernia that was treated via the TAPP approach in our hospital from April 2015 to October 2016 were retrospectively assessed.

**Results:** The median operation time was 80 minutes (40-135) for one side and 156 minutes for both sides, the median blood loss was 0 ml (0-11). Seventy-one cases were operated by the surgical residents under the supervision of the experienced surgeon. There was no conversion to open surgery and intraoperative complication including injury of spermatic duct, gonadal vessels, bladder and intestine. The lengths of hospital stay after surgery was 1.7 days (1-8). Only one patient had Grade III (Clavien-Dindo classification) small bowel obstruction a day after discharge from the hospital. No patient visited our department suffering from recurrence as of February 2017.

**Conclusion:** The TAPP approach was successfully introduced to our department with acceptable complication rate and operation time. This operative procedure has been standardized so that young surgeon can perform safely. Further investigation regarding long-term outcome is warranted.
B9-6: Compensatory sweating after endoscopic thoracic sympathectomy of T3 and T4 for palmar hyperhidrosis
Michiko Kitagawa, Akiko Umezawa, Kohei Uno, Kotaro Wakamatsu, Yosuke Seki, Kazunori Kasama, Yoshimochi Kurokawa
Minimally Invasive Surgery Center, Yotsuya Medical Cube

Introduction: Endoscopic thoracic sympathectomy (ETS) is accepted as gold standard surgical treatment for primary palmar hyperhidrosis. Compensatory sweating (CS) is defined as excessive sweating that occurs on parts of the body after ETS and is the most common side effect of this procedure.

Aim: To determine the frequency and severity of CS.

Methods: From 2015 to 2016, a total of 779 patients with palmar hyperhidrosis underwent bilateral ETS of T3 and T4. The patients received follow-up on an outpatient basis after 3 months of surgery. The degree of postoperative palmar sweating (dry, decreased, persistent or increased), conditions of CS and patient's satisfaction with outcome after surgery were reviewed retrospectively.

Results: 451 patients (57.9%) were followed postoperatively. The mean postoperative follow-up period was 3.1 months. 441 patients (97.8%) had completely dry palms, nine patients (2.0%) had mild sweating and only one patient had a recurrence of bilateral palmar sweating. CS developed in 419 patients (92.9%). 288 patients (68.7%) had developed CS in more than two parts of body. They suffered most frequently on the back, followed by thighs and abdomen. 38 (9%) patients had suffered severe CS which required medical treatment. 99.3% of patients satisfied with the improvement of palmar sweating despite of suffering of CS.

Conclusion: Although CS is high incidence after this procedure, most of CS are mild to moderate and don't threaten patient's QOL.

B9-7: Initial experience of robotic-assisted partial nephrectomy (RAPN)
Yota Nakajima, Fumito Yamabe, Kuri Suzuki, Shouta Otsuka, Hideyuki Kobayashi, Eiyu Nozawa, Hiroaki Shimmura, Koichi Nagao, Koichi Nakajima
1) Department of Urology, Toho University Omori Medical Center
2) Department of Urology, Mito Red Cross Hospital
3) Department of Urology, Jyoban Hospital of Tokiwakai Group

Introduction and Objective: Partial nephrectomy is an effective surgical treatment for small renal tumor. We review the series of operations of robotic-assisted partial nephrectomy (RAPN) in Toho University Omori Medical Center, Japan.

Materials and Methods: Between August 2016 and April 2017, a total of 15 patients underwent RAPN. Mean patients age was 66.5 (range from 44 to 76), 14 male patients and 1 female patient. 9 cases were right, and 6 cases were left renal tumor. All of the cases were cT1a (tumor size was smaller than 4 cm). We evaluated the complexity using RENAL nephrometry score (RNS). Operation was performed by single surgeon and single assistant.

Results: Intraperitoneal approach was used in all cases. Median operation time was 196 minutes (range from 177 minutes to 327 minutes), and median warm ischemic time (WIT) was 21 minutes (range from 15 minutes to 30 minutes). In 2 cases, re-clamp of renal artery was performed to control bleeding. In 14 cases, RNS sum was lower than 6 (= low complexity), and in 1 case RNS sum was 8 (= moderate complexity). No major complication was observed during/after operation. Positive surgical margin rate was 0%.

Conclusions: In our institution, there were no major complications in the initial cases of RAPN, with short WIT (in most cases shorter than 25 minutes). Therefore, we consider we could perform RAPN safely from initial cases.