

THE 6th KURE INTERNATIONAL MEDICAL FORUM(K-INT) IN 2013

Trends of Hepatobiliary and
Pancreas Diseases in Asia

July 26, 27, 28

AT National Hospital Organization

**Kure Medical Center /
Chugoku Cancer Center**

**Program
and
Proceedings**

第6回 呉国際医療フォーラム

- 会 長：上池 渉（院長）
- 開催期間：2013年7月26(金)・27(土)・28日(日)
- 開 催：国立病院機構呉医療センター・
中国がんセンター
- 会 場：呉医療センター 4F
地域医療研修センター

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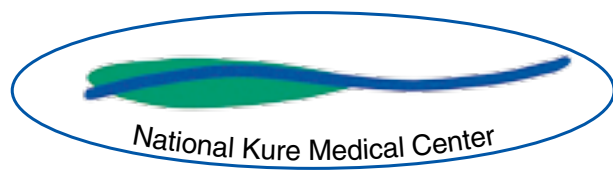
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The 6th Kure International Medical Forum (K-INT)

**Trends of Hepatobiliary and
Pancreas Diseases in Asia**



July 25, 26, 27, 28, 2013

At National Hospital Organization

Kure Medical Center / Chugoku Cancer Center



Wataru KAMIIKE, M.D., Ph.D.
President of the 6th *K-INT*
Clinical Professor

Message from the President

On behalf of the Organizing Committee, it is a privilege and a pleasure to invite you to the Sixth Kure International Medical Forum, K-INT, to be held in Kure, Hiroshima, Japan, on July 26- 28, 2013. The meeting is scheduled to take place at the Convention Hall of the National Hospital Organization Kure Medical Center/ Chugoku Cancer Center, overlooking Kure Bay and the Inland Sea. The Organizing Committee, in collaboration with our International Advisory Board, is making every effort to put together an exciting program covering important achievements in Trends of Hepatobiliary and Pancreatic Diseases in Asia.

Kure welcomes you with scenic views and historical sites such as Kure Chinjufu, and the Imperial Navy Base. You may also visit Miyajima, a World Cultural Heritage site where the people and the gods live together.

We hope to have the pleasure of your company in Kure and are looking forward to a pleasant and productive meeting.

Kure International Medical Forum

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Kure International Medical Forum
at Kure Medical Center / Chugoku Cancer Center
3-1 Aoyama-cho, Kure 737-0023, Japan
Phone: 0823-22-3111 Fax: 0823-22-3273
Homepage: <http://www.kure-nh.go.jp/english/index.html>



Program

The 6th Kure International Medical Forum (K-INT) “HEPATOBIILIARY AND PANCREATIC DISEASES IN ASIA”

July 26 (Fri.), 27 (Sat.), 28 (Sun.), 2013

National Hospital Organization (NHO)

Kure Medical Center & Chugoku Cancer Center (KMC CCC) Convention Hall

Address: 3-1 Aoyama-cho, Kure city, 737-0023, Hiroshima, Japan

July 25 Thursday, 2013

➤ SATELLITE PROGRAMS

1. Inspection Tour of NHO KMC CCC 10:00- 12:00
2. Inspection Tour of NHO KMC CCC Training Center 14:00- 15:00
3. Invited Lecture for Student Nurses 15:30- 16:30
 - 1) Woranan KOMKHUM Bangkok, Thailand
Day Surgery: A 30 Year Experience
 - 2) Sureeporn PUNYAGARIYAGORN Bangkok, Thailand
Patitta NUKWEN Bangkok, Thailand
Laparoscopic Surgery of Liver; Pre- and Post Operative Nursing Care
4. Invited Lecture for Medical Residents 16:30- 17:30
Yukako YAGI Boston, USA
Current Status of Medicine in US : Medical Education and Patient Care

July 26 Friday, 2013

5. July 26, Luncheon Seminar 11:30- 12:30

Chaired by Toshiharu KAWAMOTO, Kure, Japan
Yasufumi KANEDA Suita, Japan
Novel Strategies for Cancer Therapy Based on Inactivated Viral Particle HVJ-E
Sponsored by TAKEDA PHARMACEUTICAL COMPANY LIMITED
6. Mini concert 15:40- 16:00
Violin Solo Performance by Yuko UCHIYAMA, Mie, Japan
7. Opening Ceremony 16:00- 16:20
 - 1) Congratulations
by Kazutoshi KOMURA *Mayor of Kure City*
by Yutaka HARA *President of Kure Medical Association*
by Yasufumi KANEDA *Dean of Graduate School of Medicine, Faculty of Medicine, Osaka University*
 - 2) Welcome and Opening Address
by Wataru KAMIIKE *President of the 6th K-INT*
8. Cerebration of the 6th K-INT 16:20- 17:00
 - 1) Cheering *by Cheering group of Student Nurse School of NHOKMC*
 - 2) Performance *Local folk song by citizen volunteers*
9. July 26, Evening Session 17:00- 17:45

➤ SYMPOSIUM- 1

“Children Diseases”

Chaired by Yoshinobu NAKAGAWA, Zentsuji, Japan

- 1) Hiroki MORI Tokushima, Japan 17:00- 17:15
Risk of Carcinogenesis in the Biliary Epithelium in Patients with Pancreaticobiliary Maljunction through both Epigenetic and Genetic Regulation
- 2) Takahiro OHKURA Okayama, Japan 17:15- 17:30
Management of Prenatally Detected Cyst at the Hepatic Hilum
- 3) Pra -On SUPRADISH Bangkok, Thailand 17:30- 17:45
Hepatitis and Fulminant Hepatic Failure: Unusual Manifestations of Dengue

10. July 26, Evening Seminar 18:30- 19:30
 Chaired by Takashi ONOE, Kure, Japan
 Hideki OH DAN Hiroshima, Japan
The Therapeutic Strategy for Liver Tumor
 Sponsored by CHUGAI PHARMACEUTICAL Co., Ltd.

11. Presidential Welcome Party 19:00- 21:00
 At IL MARE; Kure Hankyu Hotel Grand Floor

July 27 Saturday, 2013

12. July 27, Morning Session 10:00- 11:30

➤ SYMPOSIUM- 2

“Hepatobiliary Malignancy and Transplantation”

Chaired by Kiyomi TANIYAMA, Kure, Japan

- 1) Hiroaki NAGANO Suita, Japan 10:00- 10:15
Recent Advance of Surgical Treatment for Liver Cancer
- 2) Takashi ONOE Kure, Japan 10:15- 10:30
The Impact and Mechanism of Postoperative Portal Hypertension on Alloimmune Responses after in Living Donor Liver Transplantation.
- 3) Masahiro TANEMURA Kure, Japan 10:30- 10:45
Current Status of Pancreas Transplantation in Osaka University Hospital: Does Donor Age Increase Morbidity?
- 4) Alfred Wei Chieh KOW Singapore 10:45- 11:00
Trend of Liver Transplantation in Asia
- 5) Senthilnathan PALANISAMY Tamilnadu, India 11:00- 11:15
Laparoscopic Pancreatoduodenectomy - Where We Started and Where Are We Now?
- 6) Yukako YAGI Boston, USA 11:15- 11:30
The Roles of Whole Slide Imaging based Three-Dementional (3D) Re-construction in Diagnostic Pathology

13. July 27, Luncheon Seminar 12:00- 13:00

Chaired by Masahiro TANEMURA, Kure, Japan

Katsuhiko UESAKA Nagaizumi, Japan
New Evolution of Postoperative Adjuvant Chemotherapy for Pancreatic Cancer
: Results of the JASPAC 01 Study
 Sponsored by TAIHO PHARMACEUTICAL CO., LTD.

14. Group Photo 13:15- 13:30

15. Poster Discussion 13:30- 14:00

16. July 27, Afternoon Session 14:00- 17:00

➤ SYMPOSIUM- 3

“Hepatic Diseases”

Chaired by Shoichi TAKAHASHI, Hiroshima, Japan

- 1) Hiroshi KOHNO Kure, Japan 14:00- 14:15
Combination and Triple Therapy for Elderly Chronic Hepatitis C Patients Infected with Genotype 1 and High Viral Loads
- 2) Mikiya KITAMOTO Hiroshima, Japan 14:15- 14:30
Regular Surveillance by Imaging for Early Detection of Hepatocellular Carcinoma
- 3) Yi Wen HUANG Taipei, Taiwan 14:30- 14:45
Low Serum HBV RNA Predicts Initial Virological Response in Nucleoside Analogue Treated Chronic Hepatitis B Patients
- 4) Apichet SIRINAWASATIEN Bangkok, Thailand 14:45- 15:00
The Better Treatment Outcomes of Transarterial Chemoembolization with Adjuvant Percutaneous Ethanol Injection over Transarterial Chemoembolization Alone in Patients with Intermediate-to Advanced-stage Hepatocellular Carcinoma

<Coffee Break>

➤ SYMPOSIUM- 4

“Biliary Diseases”

Chaired by Susumu TAZUMA, Hiroshima, Japan

- 1) Atsushi YAMAGUCHI Kure, Japan 15:30- 15:45
Characterization of Acute A Cholangitis in Older People and Outcome of Emergent ERC
- 2) Ryuichi YAMAMOTO Hiroshima, Japan 15:45- 16:00
Clinical Characteristics of Sclerosing Cholangitis (SC) in Comparison between Primary SC (PSC) and IgG4 Related SC (IgG4-SC)
- 3) Young Soo MOON Busan, Korea 16:00- 16:15
Recent Advances in Biliary Stent Technology
- 4) Boon Koon YOONG Kuala Lumpur, Malaysia 16:15- 16:30
Advancement in Management of Biliary Disease
- 5) Kawin LEELAWAT Bangkok, Thailand 16:30- 16:45
CD24 Induces the Invasion of Cholangiocarcinoma Cells by Up-Regulation of CXCR4 and Increase Phosphorylation of ERK1/2

17. Closing Ceremony 17:00- 17:15

by Takashi SUGITA Vice- President of the 6th K-INT

18. Funfest for reunion 17:30- 18:00

by Katsuyuki MORIWAKI Vice- President of the 6th K-INT

19. July 27, Poster Session 10:00- 16:00

Mounting: 9:00-10:00

Viewing: 10:00- 16:00

Discussion: 13:30- 14:00

Removal: 16:00-16:30

➤ POSTER SESSION

- P-1 Hiroyuki MICHIIHIRO, et al. Kure, Japan
Role of Rehabilitation Staff in Comprehensive Preoperative Pulmonary Rehabilitation: 2nd Report
- P-2 Rie MUKAI, et al. Kure, Japan
Correct Identification of Patients –a campaign for success: 2nd Report
- P-3 Miyuki KAWASHIMA, et al. Kure, Japan
Analysis for Caregiver Burden of Stoma Care Using the Zarit Burden Interview Method: 2nd Report
- P-4 Shunsuke ICHIKAWA, et al. Kure, Japan
Two Weeks Hyperbaric Oxygen Therapy for Sudden Deafness: 2nd Report
- P-5 Ai IDEOKA, et al. Kure, Japan
Baby Massage Quells Negative Emotion in Mothers towards Their Infants and Postnatal Depression : 2nd Report
- P-6 Noriko TAKEMARU, et al. Kure, Japan
Maternity Nursing Practice at Kure Medical Center: 2nd Report
- P-7 Somsak RAHULE, et al. Bangkok, Thailand
Microbiology Laboratory Management System (M-Lab)

July 28 Sunday, 2013

20. July 28, Sunday Session 10:00- 16:00

Chaired by Kiyomi TANIYAMA, Kure, Japan

“Free discussion on the prospect for the 7th K-INT” 10:00 –12:00

“Inspection of hospitals in Kure and Hiroshima cities” 13:00 –16:00



Proceedings

TOPICS

Hepatobiliary and Pancreatic Diseases in Asia

ABSTRACTS

July 26 Friday, 2013

▷ SYMPOSIUM-1

“Children Diseases”

July 27 Saturday, 2013

▷ SYMPOSIUM-2

“Hepatobiliary Malignancy and Transplantation”

▷ SYMPOSIUM-3

“Hepatic Diseases”

▷ SYMPOSIUM-4

“Biliary Diseases”

▷ POSTER SESSION

July 28 Sunday, 2013

▷ SUNDAY SESSION

TOPICS



Masahiro TANEMURA, M.D., Ph.D.

Head, Hepatobiliary and Pancreas Surgery

Chief, Division of Microbiology and Immunology

Institute for Clinical Research

National Hospital Organization Kure Medical Center
and Chugoku Cancer Center

It is my great pleasure and honor to invite you to attend the 6th K-INT.

This medical forum is held annually and offers a great opportunity to present new work, master novel techniques, acquire clinical data, and engage in mutual interactions with domestic and international specialists in the field of Hepato-Biliary-Pancreatic Surgery (HBP Surgery). The focus of this forum is 2-fold. First, we provide the status of liver and pancreas transplantation in Japan. The Japanese organ experience in recent years has been beset by a severe donor shortage because of restrictions imposed by the organ transplantation law of 1997. With this law, family consent is required for organ recovery even when executing a documented will of a donor; additionally, the donor must be 15 years or older. The revision of the transplantation law in June 2010 involved a change from the “opt-in” system to the “opt-out” system, which had led to the progressive increase in the number of brain death donors, and all donors except two concerned by family consent without executing a documented will. As an overview of the status of liver and pancreas transplantation in Japan, we present strategies to focus efforts on the use of living and marginal organs to improve transplantation outcomes. Second, we present new treatments for hepatocellular carcinoma and pancreatic cancer, present and future. Hepatocellular carcinoma is a major health problem and the sixth most common cancer worldwide, including Asia. Despite the availability of several treatment opportunities, diagnosis is still made in an advanced phase, thus, limiting application of most therapeutic choices including surgical resection, orthotopic liver transplantation, arterial chemo embolization, and systemic therapy with Sorafenib for advanced hepatocellular carcinoma. We present current clinical developments for hepatocellular carcinoma, which represents an important promise of improvements in patient survival. Moreover, we focus on laparoscopic pancreatic surgery toward pancreatic cancer in the present forum. Minimally invasive surgery has become

widely accepted as a superior alternative to conventional open surgery in many gastrointestinal fields including colorectal and gastric cancer. Recent rapid developments in technological innovations have led to improved surgical techniques concerning the feasibility and safety of laparoscopic pancreatic resection for properly selected patients. Specifically, laparoscopic distal pancreatectomy has gained rapid acceptance because of the relative feasibility and low rate of intraoperative complications. Although laparoscopic pancreaticoduodenectomy is still not widely accepted, recent reports have described laparoscopic Whipple's procedure for pancreatic cancer as feasible and safe for selected cases. We show the newest experience with laparoscopic Whipple and comparable oncological outcomes with those of an open procedure for advanced pancreatic cancer.

Finally, we hope to provide a forum to highlight the current state of the science and practice of HBP surgery, to explore "From Kure to Asia and to the World—Message for the future" at K-INT 2013 held in Kure.



Hiroshi KOHNO, M.D., Ph.D.

Director, Department of Gastroenterology

National Hospital Organization Kure Medical Center
and Chugoku Cancer Center

It is my great pleasure and honor to invite you to attend the 6th K-INT. The 6th K-INT will commemorate progress in the Asian fight involving experimental and clinical approaches to Hepato-Biliary Disease. Through active exchange of scientific information and lively discussion of important issues, solutions for old and new problems related to viral hepatitis and liver and biliary diseases can be attained. The theme of this forum is: Trends of Hepatobiliary and Pancreas Diseases in Asia.

We expect active discussion regarding hepatobiliary disease in this forum as it offers significant opportunities for information exchange among doctors and researchers.

Risk of Carcinogenesis in the Biliary Epithelium in Patients with Pancreaticobiliary Maljunction through both Epigenetic and Genetic Regulation

Hiroki MORI¹⁾, Hiroki ISHIBASHI¹⁾, Keigo YADA¹⁾, Hirohiko SATO¹⁾, Mitsuo SHIMADA¹⁾, Akira NII²⁾

¹⁾Department of Pediatric Surgery and Pediatric Endoscopic Surgery, Tokushima University Hospital, Tokushima, Japan

²⁾Department of Pediatric Surgery, National Kagawa Children's Hospital, Kagawa, Japan

Background: Pancreaticobiliary maljunction (PBM) is a high risk factor for biliary tract cancer because of the regurgitation of pancreatic and bile juice. The purpose of this study was to investigate the expression of epigenetic carcinogenesis genes, especially HDAC (Histone deacetylase), and genetic carcinogenesis genes, especially AID (activation-induced cytidine deaminase) which had the activity of gene mutation, in the biliary epithelium in PBM patients.

Materials and methods: Thirteen PBM patients without biliary cancer who was performed extrahepatic bile duct resection were enrolled. Ten out of 13 patients with PBM were in Dilated group (D) and three out of them were in Non-dilated group (ND). Four patients without biliary cancer performed pancreaticoduodenectomy were selected as a control group (C). The expression of K-ras and AID in the gallbladder and bile duct epithelium was evaluated by immunohistochemistry. More than 10% of K-ras and AID expression was evaluated as a positive staining.

Results: In the gallbladder epithelium, the expression of K-ras in the Dilated group significantly increased compared to those in control group (C:D:ND=25.0%:90.0%:66.7%). In the bile duct epithelium, the expression of K-ras in the Non-Dilated group significantly increased compared to those in control group (C:D:ND=25.0%:70.0%:100%). In the gallbladder epithelium, the expression of AID in the Dilated group significantly increased compared to those in control group (C:D:ND=0%:70.0%:66.7%). In the bile duct epithelium, the expression of AID in the Non-dilated group significantly increased compared to those in control group (C:D:ND=0%:40.0%:66.7%).

Conclusions: Patients with PBM had the high expression of AID in the biliary epithelium in both the Dilated and Non-dilated group. These findings suggested that patients with PBM in both Dilated and Non-dilated type had a possibility of malignant potentials for bile tract cancer through both epigenetic and genetic pathways.

Hiroki MORI, M.D., PhD

Associated Professor and Department of Pediatric Surgery and Pediatric Endoscopic Surgery, Tokushima University Hospital, Tokushima, Japan

EDUCATION

2002 M.D., Tokushima University school of medicine, Tokushima, Japan

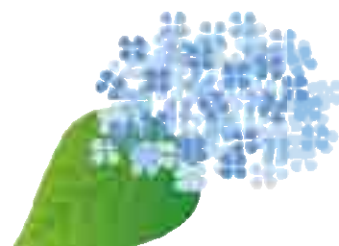
2010 Ph.D., Tokushima University school of medicine, Tokushima, Japan

WORKING EXPERIENCE

2002-2004 Resident , Tokushima University School of Medicine, Tokushima, Japan and Department of Surgery, Hyogo Prefectural Awaji Hospital, Sumoto, Hyogo

2005-present Staff Surgeon, Tokushima University hospital, Tokushima, Japan

(Memo)



Management of Prenatally Detected Cyst at the Hepatic Hilum

Takahiro OHKURA, Takafumi GOTO, Junko MANAKO, Shuichi KATAYAMA, Yasuo NAKAHARA, Takashi AKIYAMA, Masahiro KAWASAKI, Yoshinobu IWAMURA, Koji AOYAMA

NHO Okayama Medical Center, Hiroshima City Hospital, Yamaguchi Grand Medical Center, NHO Kagawa National Children's Hospital

Background

Cysts at the hepatic hilum are more frequently being detected prenatally. The management strategy and prognosis in this group of patients are unclear.

Methods

We retrospectively reviewed 6 patients with a cyst at the hepatic hilum found during routine prenatal ultrasonography. Timing of surgery, pathological features, postoperative complications, and perioperative ultrasonographic and laboratory results were analyzed.

Results

During the first several weeks of life, 5 patients became jaundiced and underwent exploration at a mean age of 6.2 weeks. All 5 patients were found to have biliary atresia (4 Type I, 1 Type IIId). One asymptomatic patient underwent elective surgery at the age of 4 months and was diagnosed with a choledochal cyst. All the patients survived without jaundice. Only one patient with Type I biliary atresia had multiple episodes of postoperative cholangitis.

Conclusion

Most of the prenatally diagnosed biliary cysts represent two different diseases: biliary atresia and choledochal cysts. Because it is impossible to distinguish between choledochal cysts and biliary atresia on preoperative imaging, children with a cyst at the hepatic hilum should undergo early exploration to rule out potential biliary atresia, especially when they become jaundiced. Excellent outcomes are possible with early operation.

Takahiro OHKURA, M.D.

Senior Resident, NHO Okayama Medical Center

EDUCATION

2009 M.D., Okayama University school of medicine, Okayama, Japan

WORKING EXPERIENCE

2009-present Resident , NHO Okayama Medical Center, Okayama, Japan

(Memo)



Hepatitis and Fulminant Hepatic Failure :Unusual Manifestations of Dengue

Pra-on SUPRADISH

Queen Sirikit National Institute of Child Health, Bangkok, Thailand

Dengue viruses (DENV) cause infection worldwide especially in tropical and subtropical countries. Estimated 50 million people are infected annually with 500,000 severe diseases and 19,000 deaths. There are 4 serotypes, DENV 1-4. Each causes a variety of clinical manifestation ranging from non-specific fever, dengue fever (DF), dengue hemorrhagic fever (DHF) with plasma leakage to the most severe and life threatening DHF with shock called dengue shock syndrome (DSS).

Liver involvement in dengue infection is usually mild. Acute hepatitis, defined by increased hepatic aminotransferase enzymes, was found in 15 and 20.7% dengue infected adults in Pakistan and Brazil respectively. In QSNICH, hepatitis was present in 3.8% of 4,625 serologically confirmed dengue patients during 2002-2006. Liver injury is caused by DENV direct infection of hepatocytes and Kupffer cells and immune mediated mechanism by activated T-cells resulting in destruction of uninfected hepatocytes. Among 4 DENV serotypes, DENV-3 infection shows higher incidences of hepatitis and severe diseases in addition to DENV-2.

Hepatic failure and hepatic encephalopathy are unusual manifestations of dengue illnesses even though dengue infection was a major cause of acute hepatic failure in Thai (34.3% of 40 patients) and Indian (48.1% of 27 patients) children. In QSNICH, 0.9% of admitted dengue patients developed hepatic failure. The incidences of hepatic failure and encephalopathy are high in patients with DSS. In 50 DSS patients presented with shock at the ER, 30% revealed hepatic failure. In this case, hepatic failure is a result of prolonged shock during the critical phase with plasma leakage either from massive bleeding or failure to maintain intravascular volume because of massive leakage. Hepatic failure is associated with coagulopathy, massive bleeding and high mortality rate.

In conclusion, hepatitis caused by DENV infection is mild. Hepatic failure and encephalopathy are complications of prolonged shock in DSS patients associated with high mortality rate.

Pra-On SUPRADISH, M.D.

Queen Sirikit National Institute of Child Health, Bangkok Thailand

EDUCATION

- | | |
|------|---|
| 1997 | M.D., Medical Faculty of Ramathibodi Hospital, Mahidol University, Bangkok |
| 2002 | Board of Pediatrics, Queen Sirikit National Institute of Child Health
Bangkok, Thailand |
| 2007 | Certificate in Immunology and Infectious Diseases, University of Massachusetts Medical School, Massachusetts, USA |

WORKING EXPERIENCE

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|--------------|---|
| 1999-2002 | Resident , Queen Sirikit National Institute of Child Health
Bangkok, Thailand |
| 2002-present | Staff Pediatrician, Queen Sirikit National Institute of Child Health
Bangkok, Thailand |

(Memo)



Recent Advance of Surgical Treatment for Liver Cancer

Hiroaki NAGANO

Department of Surgery and Transplantation Medicine, Osaka University Hospital,
Suita, Japan

Recent progress of surgical technique is marked in the field of liver surgery for malignant tumor. In this symposium, I will present the recent cases about the liver surgery with arterial resection and reconstruction, and with reconstruction of inferior vena cava using artificial graft for cholangiocarcinoma.

Hiroaki NAGANO, MD, PhD

Professor, Department of Surgery and Transplantation Medicine, Osaka University Hosipital, Suita, Japan

EDUCATION

- | | |
|-----------|--|
| 1986 | Passed the examination of National Board |
| 1987-1994 | PhD, Transplantation Immunology, Osaka University Medical School, Suita, Japan |

WORKING EXPERIENCE

- | | |
|--------------|--|
| 1986-1987 | Junior Resident, Department of Surgery II, Osaka University Hospital, Suita, Japan |
| 1987-1990 | Resident, Department of Surgery, The Center for Cancer and Cardiovascular Diseases of Osaka, Osaka, Japan |
| 1990-1994 | Surgical Staff, Department of Surgery II, Osaka University Hospital, Suita, Japan |
| 1994-1997 | Research Fellow, Department of Surgery, Brigham and Women's Hospital, Harvard Medical School , Boston, USA |
| 1997-2004 | Assistant Professor, Department of Surgery, Graduate School of Medicine, Osaka University, Suita, Japan |
| 2004-2009 | Associate Professor, Department of Surgery, Graduate School of Medicine, Osaka University, Suita, Japan |
| 2010-present | Professor, Department of Surgery and Transplantation Medicine, Osaka University Hospital, Suita, Japan |

(Memo)



ERAS using early enteral nutrition prevents systemic inflammatory reaction and infection after liver transplantation.

Takashi ONOE ^{1,2)}, Yuka TANAKA ²⁾, Hideki OHDAN ²⁾

¹⁾ Institute for Clinical Research, NHO, Kure Medical Center / Chugoku Cancer Center

²⁾ Department of Surgery, Hiroshima University

Background: Liver transplantation is one of the most invasive procedures in surgery and the pre-operative condition of patients is often poor. Furthermore, patients receive immune-suppressant after surgery and become immune-compromized. Therefore, nutrient management is important to avoid the several risks including infection. Emphasis has more recently been placed on the enteral nutrition to hasten recovery after transplantation as well as to modulate immune-status and avoid infection in liver transplantation. In this study, we investigated the impact of early enteral nutrition in liver transplantation.

Methods: Between 2007 and 2012, liver transplantation procedures were performed in 109 patients. The enteral feeding using glutamine-fiber-oligosaccharide mixture (GFO) and whey peptide-based enteral formula diet was started after LT. The patients were divided to two groups, patients with or without an early enteral nutrition within 60 hours after LT (EEN group and non-EEN group, respectively) and were evaluated retrospectively. ABO-incompatible and primary sclerosis cholangitis with crohn disease cases were excluded from analysis.

Results: A retrospective multivariate analysis of factors, (recipient, donor, graft and surgical factors including EEN), influencing the incidence of SIRS on POD 10, infection and sepsis within 1 month after surgery revealed that graft-versus-recipient weight and EEN were significant risk factors. We next compared EEN and non-EEN groups by statistical matching technique using propensity score (PS) to estimate the impact of EEN on infection. The characteristics of patients including GRWR did not differ between the two groups. Analysis revealed that incidences of SIRS, infection and sepsis in non-EEN group showed higher than those in EEN group. Furthermore, the CRP value was significantly lower in the EEF group than in the non-EEF group since post-operative day 7. The length of postoperative intensive care unit stay in the EEF group was significantly shorter than that in the non-EEF group.

Conclusion: Early enteral nutrition with GFO and whey peptide-based enteral formula diet prevents post transplant systemic inflammatory response, infection and bacteremia.

Takashi ONOE, M.D., Ph.D.

Chief of Molecular Oncology Research Lab, Institute for Clinical Research, NHO,
Kure Medical Center / Chugoku Cancer Center

EDUCATION

1996	M.D., Hiroshima University school of medicine, Hiroshima, Japan
2005	Ph.D., Graduate School of Biomedical Sciences, Hiroshima University, Hiroshima, Japan
2005 - 2009	Post-Doctoral Fellow, TBRC, Massachusetts General Hospital / Harvard Medical School, Boston, USA
2007-2009	Post-Doctoral Fellow for Research Abroad, Japan Society for the Promotion of Science, Boston, USA

WORKING EXPERIENCE

1997-1999	Resident, Japan Railway Hospital, Hiroshima, Japan
1999-2000	Resident, Onomichi General Hospital, Hiroshima, Japan
2000-2001	Staff Surgeon, Hiroshima University Hospital, Hiroshima, Japan
2009-2010	
2010-2012	Assistant professor, Hiroshima University Hospital, Hiroshima, Japan
2012-present	Assistant professor, Hiroshima University school of medicine, Hiroshima, Japan
2012-present	Staff, Institute for Clinical Research, NHO, Kure Medical Center / Chugoku Cancer Center, Kure, Japan

(Memo)



Current Status of Pancreas Transplantation in Osaka University Hospital: Does Donor Age Increase Morbidity?

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【Introduction】 Pancreas transplantation (PTx) remains the best intervention for type 1 diabetes mellitus (IDDM) that reestablishes normoglycemia. The Japanese PTx experience over recent years has been beset by a severe donor shortage because of the restrictions imposed by the organ transplantation law of 1997. In June, 2010, the revision of the transplantation law was performed, leading to the progressive increase in the number of brain death donors. Although many restrictions were removed, PTxs from brain death donors were performed in only 153 recipients since the first case in April 2000. Most of these PTxs were donated from marginal donors, including high aged donors (> 45) and hemodynamically unstable donors on high-dose vasopressors.

【Aim】 This study aimed to analyze the outcome of PTxs based on the comprehensive follow-up data in Osaka University Hospital.

【Methods】 23 cases with follow-up from April 2000 to September 2011 were included in the analysis, and a retrospective study was performed.

【Results】 Of these 23 PTxs, 18 were simultaneous pancreas-kidney (SPK) transplants, 5 were pancreas after kidney (PAK) transplants. 18 PTxs (SPK: 15, PAK: 3) were enteric drainage, while the remains 5 (SPK: 3, PAK: 2) had bladder drainage. In donor characteristics, significantly more male than female donors were accepted. For most of accepted donors, cerebrovascular problems were the reported cause of death (70 %) and their median age at donation was 49 years old (range 30-72). 79 % of accepted donors were categorized in marginal donors. In recipients characteristics, median age at PTx was 41 years old (range 30-50). Median time until received the pancreas transplant was 1278 days (range 200-2649 days). The survival rate of patients who received primary pancreas transplants has constantly improved and reached more than 92 % at 1 year post-PTx. However, two patients were lost by infections. Graft thrombosis were occurred in two patients and graft duodenal perforation was occurred in one patient. The remains 18 recipients well preserved pancreas graft function without insulin therapy.

【Conclusions】 This study demonstrates that donors 45 years of age or older are suitable candidates for pancreas organ donors with excellent short- and long-term pancreas graft function.

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(Memo)



Trend of Liver Transplantation in Asia

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Asia is leading the trend of living donor liver transplantation in the world. While a large number of liver transplantation in the West is cadaveric liver transplantation, cultural differences have led to lower cadaveric organ donation. This has fueled the development of living-donor organ transplantation in Asia. Many centers in Korea, Japan, Hong Kong and Taiwan are now the leading centers in the world for living-donor liver transplantation. There are indeed issues regarding living donor organ donation. While it helps to solve the shortage of organ for patients who are in need of transplantation, it has also sparked enthusiastic discussion with regards to the ethical boundaries and safety of the surgery revolving around the donors. We see similar situation in Singapore. In this talk, we discuss on the role of living organ transplantation in Asia.

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(Memo)



Laparoscopic Pancreatoduodenectomy - Where We Started and Where Are We Now?

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Pancreatoduodenectomy is a formidable procedure involving complex resection and reconstruction. Though technical feasibility had been established, critical factors like oncological radicality and long term survival needs to be evaluated to find the exact place of laparoscopy for pancreatoduodenectomy.

We analysed our technical evolution and outcomes of laparoscopic pancreatoduodenectomy performed for pancreatic head and periampullary tumors at our centre between March 1998 and March 2013. All the surgeries were performed by two senior surgeons of the HPB department (C Palanivelu & P Senthilnathan)

We performed 140 laparoscopic pancreatoduodenectomies of which 68 were for pancreatic head malignancies. There were 38 females and 102 males with a mean age 61 years (range 28-76). The mean operating time was 374 mins (range 270-650) and mean blood loss was 120ml (range 35-650). Overall postoperative morbidity was 30.7 % (43 patients) with pancreatic fistula rate of 8.57 % (12 patients) of which 2 had ISGPF grade C fistula. We had one conversion and further 2 patients required reintervention for bleeding complication. We had 2 mortality (1.42%). The average time to return to normal bowel movement was 3.5 days and the mean hospital stay was 8.75 day.

Average tumor size was 3.1cms. Margin positivity rate (R1) was 8.8% (4/45 patients) in period I (2006 to 2010) and 15.9% (7/44 patients) in period II (2010 to present). The mean number of lymph nodes harvested was 18 (range 8-24) with node positivity rate of 65%. Pathologically, adenocarcinoma formed the majority of the resections.

Conclusion:

Results obtained in our 15 years of experience have shown that oncological radicality and long term survival rates are equal with laparoscopic and open approach. However it has a steep learning curve and requires commitment and perseverance to practice laparoscopic pancreatoduodenectomy.

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(Memo)



The roles of Whole Slide Imaging based Three-Dementional (3D) Re-construction in Diagnostic Pathology

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WSI technologies and rendering software have improved to the point that 3D reconstruction of large structures at microscopic scale from hundreds of serial sections became possible. 3D Imaging has the potential to bring about new discoveries in medicine. However, challenges were such as section registration, quality of tissue and the effects of tissue processing and sectioning all must be optimized, and the huge amount of data that can be generated must be processed, stored and made available as quickly and efficiently as possible. Recently, we improved the quality of consecutive image alignment technology and speed of reconstruction. It enhances the value of histology 3D imaging and opens up more possibilities.

50-250 serial sections per model were cut manually or by an automated sectioning machine from formalin-fixed paraffin-embedded blocks and stained with H&E. Serial sections were scanned at 0.33um/pixel or 0.45um/pixel using Whole Slide Imaging Scanners. 3D reconstruction was done using the algorithms developed by co-authors. To improve the quality of consecutive image alignment, new algorithms incorporated intensity values into the registration process underlying the image reconstruction. To this end, similarity measures working on pixel color values instead of extracted landmarks drive the iterative algorithm, which optimizes the relative geometric location between neighboring sections dramatically. To improve the reconstruction speed, new algorithm used a combination of image pyramids and region processing: Image stacks were initially reconstructed on a low magnification level, which did not cause too much computational workload. If a user selects a region of interest by zooming into the initially reconstructed volume, only the alignment of this particular region is updated discarding surrounding regions. The application in pancreas and heart transplant including usages of 3D imaging such as radiology view and blood vessel segmentation will be presented

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(Memo)



Combination and Triple Therapy for Elderly Chronic Hepatitis C Patients Infected with Genotype 1 and High Viral Loads

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In Japan, a major cause of hepatocellular carcinoma (HCC) is HCV (approximately 60%). Incidence of HCC increases in elderly patients at any fibrotic stage. Therefore, it is important for elderly patients to undergo anti-viral therapy. Triple therapy (peginterferon/ribavirin/telaprevir) has been the most effective and favored treatment of chronic hepatitis C patients to date. In patients with HCV genotype 1 and high viral loads, the sustained virological response (SVR) rate is lower in elderly compared to younger patients. The treatment of elderly patients may influence the occurrence of adverse events. Elderly patients have decreased cardiovascular and pulmonary function, thus, are resistant to the anemia induced by ribavirin. Ribavirin might result in severe hematologic adverse events when renal function is impaired because ribavirin concentrations increase, particularly in red blood cells. Generally, the renal function of elderly patients may naturally decrease with age. Thus, it is difficult to obtain a SVR in elderly patients infected with genotype 1b and high viral loads. In Japan, a high frequency of adverse events and high rates of discontinuation of the combination therapy (peginterferon/ribavirin) have also been observed in elderly patients.

In this presentation, I mention the impact of ribavirin and telaprevir dose reduction on the efficacy of the combination and triple therapy for elderly patients infected with genotype 1b and high viral loads.

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(Memo)



Regular Surveillance by Imaging for Early Detection of Hepatocellular Carcinoma

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Background: Hepatocellular carcinoma (HCC) is one of the most common malignancies worldwide, and patients with HCC continue to suffer an unsatisfactory prognosis. In order to achieve better outcomes in patients with HCC, early detection is vital for therapeutic success. We previously reported that regular surveillance by imaging procedures is useful for detecting early-stage HCC in patients with HCV-related chronic liver disease (JG 2010; 45:105-12). In the present study, we also demonstrate the significance of imaging surveillance, including a ten-year experience.

Methods: Patients with HCC that were treated for ten years at our institution were divided into three groups. Patients diagnosed with HCC by repeated imaging constituted Group A (surveillance group). Group B was comprised of patients in whom HCC was detected during scheduled doctor visits for liver disease or other diseases such as diabetes. Group C was comprised of non-screened patients.

Results: The prevalence of solitary tumors decreased from Group A to Group B to Group C. The proportion of patients with stages I and II decreased from 80% in Group A to half in Group B and about 20% in Group C. The proportion of patients that were treated with curative procedures, such as resection or ablation, was highest at about 80% in Group A, and lower in Groups B and C. Periodic medical follow-ups without imaging did not necessarily detect early-stage disease, even when HCC-related markers including des-gamma-carboxy prothrombin or alpha-fetoprotein were tested.

Conclusion: Regular surveillance with ultrasonography and contrast-enhanced imaging is useful for detecting early-stage HCC and increase the chance for earlier interventions for curative treatments.

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(Memo)



Low Serum HBV RNA Predicts Initial Virological Response in Nucleoside Analogue Treated Chronic Hepatitis B Patients

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Background & Aims: Serum HBV RNA is detected during nucleos(t)ide analogues therapy as the consequence of unaffected RNA replicative intermediates as well as interrupted reverse transcription. In this study, we aimed to determine the predictability of serum HBV RNA on initial virological response during lamivudine and entecavir therapy.

Methods: Serum HBV RNA was quantified by reverse transcription of HBV nucleic acid extract and real-time PCR before and at 3 and 6 months during lamivudine and entecavir therapy. Serum HBV DNA was measured every 1-3 months during treatment to detect initial virological response.

Results: Serum HBV RNA was undetectable in consecutive 52 patients (M/F 35/17; mean age 60, range 31 to 82 years; 44% HBeAg positive) before treatment, but became detectable in 15 of 26 (58%) lamivudine- and 25 of 26 (96%) entecavir-treated patients. Most of them were detected at 3 months of therapy (13 with lamivudine and 22 with entecavir). Low serum HBV RNA at 3 months of treatment and lamivudine therapy, in comparison to entecavir, predicts initial undetectable serum HBV DNA (median 3.5, range 1-28 months), after adjustment of age, gender, HBeAg, baseline ALT, baseline quantitative HBsAg, and baseline HBV DNA ($p=0.002$ and 0.02 , respectively).

Conclusion: Low serum HBV RNA at 3 months of nucleoside analogue treatment predicts initial virological response in chronic hepatitis B patients. Entecavir in comparison to lamivudine therapy results in longer duration to undetectable HBV DNA during treatment. Furthermore, serum HBV RNA level may reflect the potency of nucleoside analogues.

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 (Memo)



The Better Treatment Outcomes of Transarterial Chemoembolization with Adjuvant Percutaneous Ethanol Injection over Transarterial Chemoembolization alone in Patients with Intermediate-to Advanced-stage Hepatocellular Carcinoma

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The incidence of hepatocellular carcinoma is increasing worldwide, being the sixth most common cancer in the world (over 600,000 cases/year) and the third cause of cancer-related death. This cancer is the leading cause of cancer death especially among males in South-East Asia including Thailand. This may be related to high prevalence of chronic hepatitis B infection. Most hepatocellular carcinomas are diagnosed at intermediate or advanced stages, and only 30% of patients benefit from curative therapies such as resection, liver transplantation, or percutaneous ablation. Thus, it remains a serious medical problem in this part of the world.

Transarterial chemoembolization (TACE) slows tumor progression and improves survival by combining the effect of targeted chemotherapy with that of ischemic necrosis induced by arterial embolization. Currently TACE has become a valuable therapy with survival benefits in strictly selected patients with unresectable HCC. A combination of TACE with PEI has been proposed, on the assumption that ischaemia induced by arterial obstruction could destroy the intratumoral septa and facilitate the diffusion of ethanol, in order to improve the efficacy of treatment. We carried out a retrospective analysis to compare rate of survival in patients with intermediate-to advanced-stage hepatocellular carcinoma who received TACE combined with PEI therapy (TACE-PEI) and TACE-alone.

In our data, the most common risk factor was chronic HBV infection (60.1%) as HBV is endemic in Thailand. The most common type of tumor in our patients was solitary mass with or without daughter nodules, whereas multiple nodules or diffuse lesion are common in Western patients. Elevated serum alpha-fetoprotein above 400 ng/mL was found in less than 60% of patients, so this tumor marker was not very sensitive for diagnosis of HCC in our country. Patients who were treated with TACE-PEI combination therapy had significantly better overall survival than those who were treated with TACE-alone (18.2 months vs. 6.6 months; $P = 0.02$). The survival benefit of combination therapy over TACE monotherapy was seen only in patients with CLIP score less than 3.

In summary, TACE-PEI combination therapy was superior to TACE monotherapy in improving survival for patients with intermediate stage of hepatocellular carcinoma. The survival benefit of TACE-PEI combination therapy over TACE monotherapy was not seen in patients with advanced HCC probably due to the high mortality rate from advanced HCC per se.

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(Memo)



CHARACTERIZATION OF ACUTE CHOLANGITIS IN OLDER PEOPLE AND OUTCOME OF EMERGENT ERC

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INTRODUCTION: Acute cholangitis is a particularly frequent and potentially serious pathology in the elderly. We analyzed the clinical characteristics and outcome of emergent ERC.

AIM and METHOD: This study was a retrospective review of patients with acute cholangitis presented to our hospital from April 2008 to March 2011. Of a total of 205 patients with acute cholangitis, 108 patients were aged 75 years or older (GroupA=A), and 97 patients were younger than 75 years (GroupB=B). We compared patient clinical characteristics, severity of cholangitis, and complications of emergent ERCP. We evaluated patients according to the guidelines for the Management of Acute Cholangitis and Cholecystitis (1st Edition, 2005, Japan).

RESULTS: The percentage of severe cholangitis at arrival to the hospital was higher in A than B (17.6% vs 0%, $P<0.001$). Urgent biliary drainage was done in most patients in both groups(A: 77.7%, B: 73.1%), and most of biliary drainage was done by ERC. Overall 3 patients died, 1 due to sudden death contributing to heart failure, 1 due to aspiration pneumonitis post ERC, and 1 due to cerebral infarction. All 3 patients were older than 75 years old. Emergent ERC was performed in 79 patients in A, and 63 patients in B. ERC was successful in 87.3% in A, and 92% in B. The post ERC complication rate was 1.3% (1 patient, aspiration pneumonitis post ERC, 91-years-old women) in A, and 4.7% (3 patients, 2 pancreatitis and 1 perforation) in B.

CONCLUSION: Acute cholangitis in the elderly tends to indicate serious status. Early biliary drainage and attention to general health conditions are necessary. We were able to complete ERC relatively safely. But, we experienced a death case, so we should be careful the indications of ERC, especially in very elderly people.

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(Memo)



Clinical characteristics of sclerosing cholangitis (SC) in comparison between primary SC (PSC) and IgG4 related SC (IgG4-SC)

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BACKGROUND: Recent intensive interest is that the criteria of IgG4-SC have been reported in JHBPS (2012) as a new category of SC in addition to conventional PSC. In this study, we clarified clinical features of our SC patients retrospectively according to the new criteria.

METHOD: Twenty-one patients with SC followed in the last 10 years were subjected to this study with attentions to clinical features and courses; history, laboratory data, images, complications, prognosis.

RESULTS:

1. Almost all patients (19/21, 90%) had symptoms, fever, jaundice, abdominal pain, including those due to complicated inflammatory bowel syndrome (9/21, 43%).
2. Based on diagnostic criteria, PSC and IgG4-SC were 16 and 5, respectively. Further, 11 cases in PSC were complicated with UC (56%), and 3 cases in IgG4-SC were complicated autoimmune pancreatitis (AIP) (60%).
3. In PSC, 2 patients needed liver transplantation; one is alive with no recurrence for 7 years, but another one needed re-transplantation 2 years after first operation.
4. In PSC, 2 cases developed biliary cancers. The case developed the intrahepatic cholangiocarcinoma underwent surgery and are alive with no recurrence for 11years, but another one with gallbladder cancer died 1 year after operation.

CONCLUSION. PSC and IgG4-SC needs to be differentiated from each other as these two diseases followed by much different clinical courses.

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(Memo)



Recent Advances in Biliary Stent Technology

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Biliary self-expandable metal stents (SEMSs) were developed to overcome limitation of the diameter of plastic stents as they deliver a larger diameter stent up to 30 Fr or 10 mm, when deployed, using a relatively smaller delivery system of 7-8 Fr, facilitating easier passage across the biliary strictures mostly without needing dilatation. This larger diameter facilitates biliary flow and improves patency rates.¹ Although SEMSs are more expensive, some of them, mainly the uncovered type, cannot be removed, and there is no significant difference in the patient survival time between plastic stents and SEMSs, insertion of SEMS, 10-mm in-diameter, is recommended in patients with an established diagnosis of malignancy as the prime stent, if survival time is expected to surpass 4 months.² This is due to superior stent patency, decreased need for repeated ERCP (endoscopic retrograde cholangiopancreatography) to manage recurrent jaundice, shorter hospital stays, reduced duration of antibiotic treatment, and fewer complications.^{3, 4} Biliary SEMSs have either covered or uncovered models, and can be inserted either perorally through the working channel of the endoscope under fluoroscopic assistance or percutaneously under fluoroscopic guidance alone. The important physical properties of biliary SEMSs include a good radial force, an excellent flexibility and conformability, a minimal stent foreshortening, and a small cell size between wires. Newly designed biliary SEMSs were introduced for hilar strictures where the most problematic portion of bile duct to deploy the stents. Many researches are now under going to prolong the patency rate of biliary metal stents to enhance the quality of life in patients with malignant biliary obstruction.

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(Memo)



Advancement in Management of Biliary Disease

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Management of biliary disease is often complicated and requires multi-disciplinary treatment. Recent improvements in the understanding of various biliary diseases together with advancement in technology have changed the management of biliary diseases significantly over the last decade.

Advances in endoscopy such as endoscopic ultrasound, narrow band imaging and spy-glass have enabled accurate diagnosis of malignant and non-malignant biliary conditions. Subsequently, with the increasing agility and capability of the modern endoscopes, endoscopic management of stones, strictures and malignancy of biliary trees are increasingly popular. New techniques of endoscopic removal of biliary stone, stenting and alternative drainage of obstructive biliary lesion, and endoscopic resection of cholangiocarcinoma are increasingly reported with positive results.

On the other hand, surgical management of biliary disease has also changed with advancement in technology. Minimal invasive surgery has become increasingly popular as its outcome is sometime comparable with open surgery and yet has a speedier recovery. Robotic arm development has also expanded the scope of minimally invasive surgery with more complex surgery possible, though its cost effectiveness is still debatable. Surgery management of cholangiocarcinoma became more aggressive with the improvement of perioperative cares and surgical techniques, larger and more anatomical difficult tumor resected surgically. Last but not least, liver transplantation has opened the door of management for malignant and non-malignant biliary disease which was previously untreatable.

Management of biliary disease has changed significantly over the past decade resulting in improved results. However, more needs to be done to significantly improve the outcome, especially when malignancy is concern.

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EDUCATION

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(Memo)



CD24 induces the invasion of cholangiocarcinoma cells by up-regulation of CXCR4 and increase phosphorylation of ERK1/2

Kawin LEELAWAT

Department of Surgery, Rajavithi Hospital, Bangkok, Thailand

Cholangiocarcinoma is a malignant biliary tract tumor with an extremely poor prognosis. We investigated the expression of CD24 in cholangiocarcinoma samples and its prognostic significance. In addition, the cellular function of CD24 was studied in the RMCCA1 cholangiocarcinoma cell line. High CD24 expression significantly correlated with lymph node metastasis and positive surgical margins in cholangiocarcinoma patients. Univariate and multivariate analyses further demonstrated that CD24 expression was significantly associated with the overall survival of these patients ($p=0.007$ and $p=0.040$, respectively). For in vitro studies, the magnetic-activated cell sorting (MACS) system was used to isolate CD24⁺ and CD24⁻ cell populations from RMCCA1 cells. CD24⁺ RMCCA1 cells had increased chemoresistance, adhesion ($p=0.004$), motility ($p<0.001$), migration ($p<0.001$) and invasion ($p<0.001$) capabilities when compared to CD24⁻ cells. The matrix metalloproteinase (MMP)-7 was significantly elevated in CD24⁺ RMCCA1 cells ($p=0.01$). We found that inhibition of CD24 using siRNA silencing significantly decreased the invasive capacity of RMCCA1 cells. Using the human tumor metastasis PCR array, we demonstrated the up-regulation of many tumor associated genes including CXCR4 in CD24⁺ cells. In addition, the intracellular signaling array demonstrated the activation of ERK1/2 which is the downstream signaling of CXCR4 in CD24⁺ cells. Inhibition of CXCR4 or ERK1/2 can significantly inhibit the motility and invasiveness of CD24⁺ cells. Both clinical and in vitro studies suggest that expression of CD24 is associated with cholangiocarcinoma disease progression. CD24 may thus serve as a new target for directed molecular therapy of cholangiocarcinoma.

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EDUCATION

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1999	Certificate in Hepatobiliary and pancreas surgery, Fellowship training program (3 months), National cancer Center, Tokyo, Japan
2001	Research fellowship (1 years), Molecular and Immuno-bioregulation, Department of Medicine, Kyushu University, Japan
2003	Ph.D. Department of Anatomy, Faculty of Science, Mahidol University, Bangkok, Thailand
2004	Research Fellowship Department of Surgery and Oncology, Kyushu University, Japan

WORKING EXPERIENCE

1998- present	Staff member; Department of Surgery, Rajavithi Hospital
2002	Research secretary in Hepatobiliary and pancreas society, Royal college of surgery, Thailand
2006	Teaching Staff in Department of Biochemistry, Faculty of Science, Mahidol University



(Memo)



P-1**Role of Rehabilitation Staff in Comprehensive Preoperative Pulmonary Rehabilitation: 2nd Report**

Hiroyuki MICHIIHIRO¹, Junichi NAKAO¹, Miyako YAMASAKI¹, Masanori YASUMOTO¹, Yoshinori YAMASHITA², Hiroaki HARADA², Kiyomi TANIYAMA³, Takashi SUGITA⁴, Wataru KAMIIKE⁵

Departments of ¹Rehabilitation and ²Respiratory Surgery, ³Institute for Clinical Research, ⁴Vice President, and ⁵President, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

To date, there is no established protocol, worldwide, for preoperative pulmonary rehabilitation for lung cancer patients. In our hospital, we began conventional preoperative pulmonary rehabilitation (CVPR) in 2006, and comprehensive pulmonary rehabilitation (CHPR) in 2009 for lung cancer patients to reduce the postoperative complications and the risk of morbidity, and to improve the pulmonary function and the general status before surgery. CHPR is conducted prospectively for two to five weeks through a multidisciplinary team approach. The CHPR protocol consists of multiple appointments with the physical therapist including rehabilitation staff and the registered dietician. Intensive nutritional support was supplied with branched-chain amino acids (BCAAs) and herbal medicine supplements.

To date, CHPR has appeared to substantially improve pulmonary function, and decrease the morbidity among patients with poor preoperative conditions. In the present paper, we introduce the activities of rehabilitation staff in the CHPR program.

P-2

Correct Identification of patients – a campaign for success: 2nd Report

Rie MUKAI¹, Nana KOBAYASHI¹, Terumi AOSHIBA^{1,3}, Kiyomi TANIYAMA², Takashi SUGITA^{1,3}, Wataru KAMIIKE⁴

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<Objective>

From the view of risk management in a hospital, misidentification is one of the most serious incidents. To develop a management plan to achieve correct identification, we conducted a campaign with two slogans, “Ask a patient to tell his/her full name”, and “Confirm patient’s name on his/her ID wristband for inpatients”.

<Method>

The campaign was conducted for 10 days, from Oct 17th to 28th, 2011. The execution rate of identification was obtained from the questionnaire of patients on one day during the campaign. The efficacy was evaluated monthly by counting the number of misidentifications that occurred.

<Results>

606 inpatients and 1,040 outpatients were enrolled. Valid responses were obtained from 52.3% of inpatients and 32.4% of outpatients, respectively. Among them, 61.5% of inpatients and 59.6% outpatients were confirmed with their full names by medical staff. Misidentifications occurred for 8 cases in October, 4 cases in November, 1 case in December, and 9 cases in January. Three months after our campaign, the number of misidentifications tended to increase.

< Conclusions >

Our campaign deemed to be effective to decrease misidentification of patients. The identification should be done at first contact, and before every each medical action by medical staff. To ensure correct identification, the campaign should be conducted at 3-4 month intervals as a reminder to staff.

P-3

Analysis for caregiver burden of stoma care using the Zarit Burden Interview method: 2nd Report

Miyuki KAWASHIMA¹, Sonoko SUGIHARA¹, Chiyoko SAKUMA¹, Terumi AOSHIBA^{2,4}, Kiyomi TANIYAMA³, Takashi SUGITA⁴, Wataru KAMIIKE⁵

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<Objective>

Ostomy is usually managed by a patient with help of his/her family as caregivers. A caregiver has varying levels of caregiver burden to sustain the patients. In the present study, the caregiver burden of caregiver was assessed to clarify how it occurred.

<Methods>

The Zarit Burden Interview (ZBI) is the most widely used index for estimation of caregiver burden in Europe and North America. In Japan, ZBI is modified to a Japanese version (J-ZBI), and commonly used for the same purpose. In total, 408 caregivers of ostomy patients were enrolled in the study, and the questionnaire was conducted based on J-ZBI. Valid responses were obtained from 101 (24.8%) caregivers.

<Results>

48% of caregivers complained of burdens. Main factors causing complaint were (1) physical condition of caregiver, (2) independence of patient, (3) degree of intervention for stoma care, (4) a guilt feeling in troubled case, and (5) types of ostomy.

P-4

Two Weeks Hyperbaric Oxygen Therapy for Sudden Deafness: 2nd Report

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<Objective>

The effectiveness of hyperbaric oxygen therapy (HBO) for sudden deafness (SD) has been controversial to date. We performed HBO for SD patients and examined the effects of different treatment regiments.

<Materials and Methods>

Between January 2010 and November 2011, 87 patients with SD improved their hearing ability with drug therapy and HBO. The mean hearing abilities before and after starting HBO of these patients were measured and surveyed, retrospectively.

<Results>

The mean hearing ability at one week and two weeks HBO were 41.0 ± 23.6 dB, and 27.2 ± 16.0 dB with significant statistical difference ($p < 0.001$). On the other hand, those at two and three weeks HBO were 36.8 ± 18.1 dB, and 29.1 ± 15.1 dB, respectively, with no observed statistical difference ($p = 0.103$).

<Conclusion>

From these data described above, two weeks HBO would be a recommended standard therapy for SD. An additional week of HBO may be an option of therapy for improvement of recovery state of hearing ability.

P-5**Baby massage quells negative emotion in mothers towards their infants and postnatal depression: 2nd Report**

Ai IDEOKA¹⁾, Chie GODA¹⁾, Tomoya MIZUNOE²⁾, Terumi AOSHIBA^{1,4)}, Kiyomi TANIYAMA³⁾, Takashi SUGITA⁴⁾, Wataru KAMIIKE⁵⁾

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Introduction: Postnatal depression has been estimated between 10% and 15% in recently-delivered women internationally. Fatigue or stress experienced by mothers as a result of the demands of neonatal care may culminate in the ill-treatment of infants. Baby massage, or touch-care practice, by a mother toward her newborn(s) has been reported to improve the sense of acceptance by the mother toward her infants. In the present study, we compared the feelings of fatigue, depression, and perception of children as reported by mothers who have two-month-old infants in relation to the practice of baby massage.

Materials and Methods: In total, 22 mothers were enrolled; 11 performed baby massage and 11 did not. Questionnaires were delivered before (A) and after (B) the baby massage to the massage group and to the non-massage group (C) at two months postpartum. Student's *t* and chi-square tests were used to analyze the data obtained; the Edinburgh Postnatal Depression Scale (EPDS) was used to identify depression. $P < 0.05$ was considered statistically significant.

Results: No difference was found in breast-feeding practice among groups A, B and C. Infant's afternoon nap time was shorter and sleeping at night was longer in infants of A (3.1 hrs: 7.1 hrs; $P < 0.01$) and B (2.9 hrs: 7.8 hrs; $P < 0.05$) as compared with C (3.9 hrs: 7.8 hrs). Maternal attachment scores of A were 30.5 ± 2.3 and increased to 31.1 ± 1.8 in B ($P < 0.05$). Both scores were higher than 27.0 ± 1.8 in C ($P < 0.05$). EPDS of A, B, and C were 6.7 ± 1.1 , 4.7 ± 0.8 , and 4.4 ± 0.9 , respectively. There was statistical significance ($P < 0.05$) between A and C, or B and C.

Conclusion: Baby massage practiced by newly-delivered mothers is effective to improve the negative emotion of mother towards her infant(s), and also release the mother from the postnatal depression.

P-6

Maternity Nursing Practice at Kure Medical Center/ Chugoku Cancer Center: 2nd Report

Noriko TAKEMARU¹⁾, Terumi TSUNEISHI¹⁾, Emiko HASHIMOTO¹⁾, Mayumi MISHIMA²⁾, Wataru KAMIIKE^{3,4)}

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Student nurses at our school are required to take maternity nursing practice at Kure Medical Center/ Chugoku Cancer Center. Through this practice, they learn about pregnancy as well as perinatal and neonatal medicine. Especially by looking at the delivery of mothers in the delivery room, they become emotional and deeply aware of the significance of life. And then, they thanks to their own parents and other relatives.

In this paper, we would like to introduce our maternity nursing practice curriculum, through which nurses can learn to understand to respect other persons.

P-7

Microbiology Laboratory Management System (M-Lab)

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Currently, microcomputer has become more and more popular in homes as well as clinical laboratory because of their low cost and versatility. Microbiology laboratory management system (M-Lab) has been created since 1990 in order to assist laboratory technicians to input patients' result and output individual patient's report to the physicians, starting from the data of pre-analytical process such as specimen type and collection date, through analytical process such as microscopic examination results and culture results including antimicrobial susceptibility patterns that end with final report send to the physicians, the so called "post-analytical process". The expansion of the programme capable of analyzing the input data and generate various types of summarized report such as daily report of multiple drug resistant organisms, monthly report of target-surveillance ward and pathogen or vice versa, half-year or annual antibiogram categorized by out- or in-patients, number or percentage of most common pathogens isolated from different infected sites, etc. enchanted users to review and present their data more and more widely. M-lab program itself also contains internal quality control assessment to enhance and confirm users the results of their performances. The program furthermore concerns of continuous quality improvement (CQI) of microbiology technicians since the field of microbiology requires expertise and lots of experiences which take time although high technology available to bring automatic techniques to reduce workmanship and time. Microbiology still needs skill from experimental laboratory techniques and update knowledge to cope with (re)emerging pathogens. M-Lab system provide microbiology tips, criteria, information and knowledge gathered from sited references to pave even one way for technicians to improve themselves more easily.

The greatest potential for M-Lab system is through the interaction among other automated-microbiology machines, such as Hemoculture, Identification-Susceptibility, Zone size or MIC reader as well as the interface to Hospital Information System (HIS) to completely organize all patient-laboratory data enabling uttermost usage of microcomputer system.

Future progress might be an approach to become active rather than passive post-analytical process. That is reporting the "critical microbiological value" directly to the physician via mobile access which result in real-time therapeutic treatment for the patients.

(Memo)

[illegible]



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代謝拮抗性 抗悪性腫瘍剤

薬価標準引算

キロサイド® 注
20mg/40mg/60mg/100mg/200mg

Cylocide

シタラビン製剤

【商品名】キロサイド【商品名】シタラビン【商品名】シタラビン【商品名】シタラビン

再発・難治性
急性前骨髄球性白血病治療剤

薬価標準引算

アムノレイク® 錠 2mg

Amnolake

タシバロゲン製剤

【商品名】アムノレイク【商品名】タシバロゲン【商品名】タシバロゲン【商品名】タシバロゲン

●効能・効果、用法・用量、副作用、禁忌および原則禁薬を
含む使用上の注意等は添付文書をご覧ください。

商標 日本新薬株式会社
〒600-8500 京都府南丹波郡新宮町、山崎町

2013年5月作成 A4

FUJITSU

この国の皆さんは、
この国のみんなのことを知っている。

医療とあなたの間に。富士通の技術。

熱があるね。どこか近くの病院、病院に行きな。
病院での急な発熱、慣れない土地で感じたことはありませんか。本家の国フィンランドでは、初めての病院でも、まるでかかりつけの病院のように診察を受けることができます。これは、一般的には、診療院や薬局で個別に診察する患者さんのために提供されるサービス。多くの医療機関で共有できる仕組みがあるからです。
富士通は、このフィンランド中の病院や薬局をつなぐ、電子カルテネットワークを最先端のICTで構築。健康保険カード (KELAカード) による本人確認ができれば、遠隔の診療機能に基づいた的確な診療を受けることが可能になったのです。世界中の人々が、もっと元気に、安心して暮らせるように。富士通のICTが、あなたの健康を何年/何十年も続けます。



<http://jad.fujitsu.com/gl/>

富士通グループ

夢をかたちに

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MRI検査は多くの診療科に欠かせない検査です。

ペーシングシステムが
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SureScan[®]は、メドトロニックの条件付きMRI対応ペーシングシステムのブランド名です。

日本メドトロニック株式会社
CRDM事業部
105-0021 東京都港区東新橋2-14-1
Tel.03-6430-2011 (代)

条件付きMRI対応ペースメーカー専用Webサイト

www.mri-surescan.com

MRIシュアスキャン専用ダイヤル(受付時間:24時間) ☎ 0120-001-228

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NanoZoomerは、ガラススライドを高速スキャンし、高解像度デジタルデータに変換するバーチャルスライドスキャナです。スキャンしたデータは、専用のビューアソフトウェアを使い、顕微鏡を操作する感覚で観察することができます。また、画像配信ソフトウェアにより、手軽に遠隔病理コンサルテーションネットワークの構築も可能です。Webサイトでは、運用例やユーザインタビュー、解析ソフトウェア等を紹介しています。最新のビューアソフトウェアを無償ダウンロードしてバーチャルスライドを体験することも可能です。



専用サイト <http://jp.hamamatsu.com/sp/sys/ndp.html>

新しい情報を随時紹介

浜松ホトニクス株式会社 WEB SITE www.hamamatsu.com

システム営業推進部 〒431-3196 浜松市東区常光町812 TEL (053)431-0150 FAX (053)433-6031

* 詳細情報は、Webから *

NanoZoomer

検索

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1mg

(0.3mg/日)

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 **久光製薬株式会社**

〒841-0017 鳥栖市田代大宮町408

発売元： [資料請求先]

協和発酵キリン株式会社

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がん患者さんが
自分らしく人生を歩み続けられる
そんな新薬をお届けするために

これまで大切に生きてきた夢へのチャレンジを続けながら、がんと向き合っていきたい

私たちは患者さんの「こんな思いに寄り添いたく、よりつくりを大切にしてほしい」

有効な治療法のないがんに対する新薬や治療を目標とする新薬の開発など、


私たちはがん治療への挑戦を続けています

未来のがん医療はとうなっていけばよいのか、

その答えはいつも患者さんのこころの中にあると思っています

がんとまっすぐに向き合っている患者さん一人ひとりの人生を身をもって

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