

THE 7th KURE INTERNATIONAL
MEDICAL FORUM(K-INT) IN 2014



Approach to the Cancer Metastasis in Asia

July 11, 12, 13

AT National Hospital Organization

**Kure Medical Center /
Chugoku Cancer Center**

President **Kiyomi Taniyama**

July 10, Satellite Program

July 11, Accompany Program

Ceremony of MoU

Kure Medical Center / Chugoku Cancer Center and

Department of Pathology, Massachusetts General Hospital

Program and Proceedings

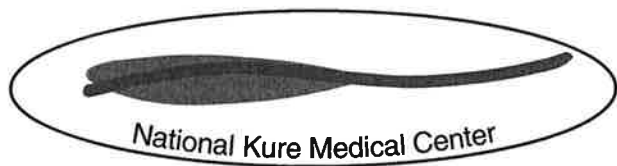
第7回 呉国際医療フォーラム

●会長：谷山 清己（院長） ●開催期間：2014年7月11日（金）・12日（土）・13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

【問い合わせ先】 〒737-0023 呉市青山町3-1 国立病院機構呉医療センター・中国がんセンター内 呉国際医療フォーラム事務局
TEL：0823-22-3111 FAX：0823-22-3273

The 7th Kure International Medical Forum (K-INT)

**Approach to the
Cancer Metastasis in Asia**



July 11, 12, 13, 2014

At National Hospital Organization

Kure Medical Center / Chugoku Cancer Center



Kiyomi Taniyama, MD, PhD.
President of the 7th K-INT
Clinical Professor

Dear all distinguished guests and participants,

We are pleased to welcome all of you to the 7th K-INT.

In 2008, Kure International Medical Forum (K-INT) was organized at Kure Medical Center and Chugoku Cancer Center (KMCCCC) to facilitate the international academic activities of the Kure and Hiroshima areas of Japan.

KMCCCC is a referral hospital with 700 beds and has several functions as a cancer center, circulatory center, emergency care center, and perinatal center in Kure City. We are proud of its highly sophisticated and integrated medical services provided for patients. K-INT is a special place where many international guests can establish new contacts both inside and outside of Japan while sharing novel knowledge of medicine and learning the traditional customs of Japan.

In this year, we will hold the seventh K-INT at KMCCCC between July 10 and 13. Its main theme is "Approach to the cancer metastasis in Asia." Special symposia upon these diseases will be held on the evening of July 11 and during the whole day of July 12.

As indicated below, different themes were selected for K-INT each year.

- 2008 Topics on Vascular Surgery in Asia
- 2009 Perinatal Medicine in Asia
- 2010 Chemotherapy in Asia: Lung and GI cancers
- 2011 Endoscopic Surgery in Asia: Current issues and future perspectives
- 2012 Emergency Medicine in Asia: How do we deal with it?
- 2013 Trends of Hepatobiliary and Pancreas Disease in Asia

Kure is a small city with about 250,000 residents and is located 20km east of Hiroshima city. It is famous for the presence of a large shipbuilding company and a beautiful panorama of the inland-sea, *Setonaikai*. Guest speakers and participants at K-INT will be in three optional tours. One is the inspection tour to KMCCCC on the morning of July 10. The other two tours are excursions to 2 UNESCO World Heritage sites: Hiroshima Peace Memorial Park on the morning of July 11 and Miyajima-Shrine on July 13. The last excursion is guided by young medical staff and student nurses at KMCCCC. In this setting, K-INT has an educational aspect as well. You would be able to enjoy sightseeing and meet young Japanese citizens in their native land.

Kure International Medical Forum

Board of Directors

-President-
Dr. Kiyomi Taniyama
-Vice President-
Dr. Takashi Sugita

-Honorary President-
Dr. Fumitaka Saji
-Vice President-
Dr. Katsuyuki Moriwaki
-Executive Director-
Dr. Kiyomi TANIYAMA

-Honorary President-
Dr. Wataru Kamiike
-Vice President-
RN. Terumi Aoshiba

Advisory Board

Prof. Taijiro Sueda
Hiroshima University
Graduate School of Biochemical Sciences

Prof. Kaoru Kurisu
Hiroshima University
Graduate School of Biochemical Sciences

Prof. Masashi Kawamoto
Hiroshima University
Graduate School of Biochemical Sciences

Prof. Yoshiki Kudo
Hiroshima University
Graduate School of Biochemical Sciences

Prof. Masao Kobayashi
Hiroshima University
Graduate School of Biochemical Sciences

Prof. Nobuoki Kohno
Hiroshima University
Graduate School of Biochemical Sciences

Prof. Kouichi Tanigawa
Hiroshima University
Graduate School of Biochemical Sciences

Prof. Susumu Tazuma
Hiroshima University Hospital

Prof. Kazuaki Chayama
University Hospital
at Hiroshima University

Prof. Eiso Hiyama
Hiroshima University
Graduate School of Biochemical Science

Prof. Kazuo Awai
Hiroshima University
Graduate School of Biochemical Science

Prof. Yoshiyuki Yamaguchi
Kawasaki Medical School

Prof. Hiroomi Okuyama
Hyogo College of Medicine

Prof. Yasufumi Kaneda
Osaka University
Graduate School of Medicine

Dr. Kiyokazu Nakajima
Osaka University
Graduate School of Medicine

Dr. Masaki Mori
Osaka University
Graduate School of Medicine

Prof. Masazumi Okajima
Hiroshima City Hospital

Dr. Toshiharu Kawamoto
NHO KMC CCC*

Dr. Nobutaka Hatanaka
NHO KMC CCC*

Dr. Kikuo Nakano
NHO KMC CCC*

Dr. Yasusuke Miyagatani
NHO KMC CCC*

Dr. Tomoya Mizunoe
NHO KMC CCC*

Dr. Yoshinori Yamashita
NHO KMC CCC*

Mr. Naotomi Ueki
NHO KMC CCC*

Dr. Yoshinobu Nakagawa
NHO Shikoku Medical Center
For Children and Adults

Dr. Takeo Tanaka
NHO Hiroshima-Nishi Medical Center

*; NHO KMC CCC: National Hospital Organization Kure Medical Center / Chugoku Cancer Center

International Advisory Board

Prof. Aileen Wee
National University Hospital, Singapore

Prof. Chuen Neng Lee
National University Hospital, Singapore

Dr. Thiti Kuakpaetoon
Rajavithi Hospital,
Thailand

Organizing Committee of the 7th K-INT

Chairman

Kiyomi Taniyama

Organizers

Takashi Sugita

Katsuyuki Moriwaki

Terumi Aoshiba

Members

Takayoshi Kiba
Takashi Onoe
Hiroshi Kohno

Yasunori Ichiba
Minoru Takebayashi
Naoyuki Toyota

Morihiro Matsuda
Masahiro Tanemura
Michinori Yamamoto

Shin-ichiro Miyagawa
Yoshinori Yamashita

Headquarters

Mr. Mouse Nomura

M.Sc. Naoko Kishida

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>

Revision at May 20, 2014



Program

The 7th Kure International Medical Forum (K-INT) “Approach to the Cancer Metastasis in Asia”

July 11 (Fri), 12 (Sat), 13 (Sun), 2014

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 10 Thursday, 2014

➤ Satellite Programs

1. Inspection tour of NHO KMC CCC 10:00- 12:00

2. Inspection tour of NHO KMC CCC training center 13:30- 14:15

3. Invited Lecture for Student Nurses 14:30- 15:45

Napasorn CHAIPAKDEE, Bangkok, Thailand

New Cases PalliativeCare

Nuchsiri NUMDEE, Bangkok, Thailand

Siriporn SANGSAWANG, Bangkok, Thailand

4. Invited Lecture for Medical Residents 16:00- 17:00

Yukako YAGI, Boston, USA

Current Status of Medicine in US: Medical Education and Patient Care

5. July 10 Evening Seminar 19:00- 20:30

Chaired by Hiroshi KOHNO, Kure, Japan

Kazuaki CHAYAMA, Hiroshima, Japan

The latest update of HCV treatment

Sponsored by Janssen Pharmaceutical Companies of Johnson & Johnson

July 11 Friday, 2014

6. July 11 Luncheon Seminar 12:00- 13:00

Chaired by Nobutaka HATANAKA, Kure, Japan

Naotoshi SUGIMOTO, Osaka, Japan

New Paradigm of the Treatment for mCRC Patients ~Treat Them Gently~

Sponsored by TAIHO PHARMACEUTICAL CO., LTD.

➤ Accompany Program

7. Ceremony of MoU 16:00- 16:15

NHO KMC CCC and

Department of Pathology, Massachusetts General Hospital

➤ **Opening Ceremony**

8. Opening Ceremony 16:30- 16:50

1) Congratulations

- by Kazutoshi KOMURA, Mayor of Kure City
by Yutaka HARA, President of Kure Medical Association
by Masaki MORI, Osaka University Hospital, Suita, Japan
by Eiso HIYAMA, Hiroshima University Hospital, Hiroshima, Japan

2) Welcome and Opening Address

- by Kiyomi TANIYAMA, President of the 7th K-INT

9. Celebration of the 7th K-INT 17:00- 17:30

- 1) Cheering by Cheering group of Student Nurse School of NHO KMC
2) Performance of Local folk song by citizen volunteers

10. July 11 Evening Session

➤ **SYMPOSIUM- 1**

“Approach to cancer metastasis for children”

Chaired by Eiso HIYAMA, Hiroshima, Japan

- 1) Sho KURIHARA, Hiroshima, Japan 17:40- 17:50
Surgical approach for lung metastasis in hepatoblastoma
- 2) Teruyoshi KAGEJI, Tokushima , Japan 17:50- 18:00
Surgical strategy for intracranial malignant germ cell tumor to prevent CNS dissemination
- 3) Yasuo NAKAHARA, Okayama, Japan 18:00- 18:10
Four cases of pediatric renal malignancy with intravascular extension
- 4) Paveen TADADONTIP, Bangkok, Thailand 18:10- 18:25
Intracranial Germ Cell tumor in Thai children: Review new cases in service during 2011-2014 at QSNICH

11. July 11 Evening Seminar 19:00- 20:00

- Chaired by Wataru KAMIKE, Kyoto, Japan
Masaki MORI, Suita, Japan
Concept of the cancer stem cell

Sponsored by TAKEDA PHARMACEUTICAL COMPANY LIMITED

12. Presidential Welcome Party 19:00- 21:00

At Navy Beer Hall

July 12 Saturday, 2014

13. July 12 Morning Session

➤ **SYMPOSIUM- 2**

“Diagnosis of cancer metastasis”

Chaired by AWAI, Hiroshima, Japan

- 1) Wataru FUKUMOTO, Hiroshima, Japan 10:00- 10:10
Significance of combining diffusion-weighted MRI with Gd-EOB-DTPA-enhanced MRI for detection of liver metastases
- 2) Naoyuki TOYOTA, Kure, Japan 10:10- 10:20
Diagnostic Capability of Gd-EOB-MRI for the Diagnosis of Hepatocellular Carcinoma (HCC): Comparison with Multi-detector CT (MDCT)
- 3) SaeGwang PARK, Busan, Korea 10:20- 10:35
A Novel Mouse Breast Tumor Cell Line for Spontaneous Metastasis, TUBO-P2J
- 4) Yukako YAGI, Boston, USA 10:35- 10:50
The roles of Whole Slide Imaging based Three-Dementional (3D) Re-construction in Diagnostic Pathology

14. Poster Discussion 11:10- 11:40

15. July 12 Luncheon Seminar 12:00- 13:00

Chaired by Naoyuki TOYOTA, Kure, Japan

Kazuo AWAI, Hiroshima, Japan

Role of contrast enhanced CT and EOB- enhanced MRI in diagnosis of metastatic liver tumors.

Sponsored by Bayer Yakuhin, Ltd.

16. Group Photo 13:10- 13:15

17. July 12 Afternoon Session

➤ **SYMPOSIUM- 3**

“Treatment for cancer metastasis- 1”

Chaired by Yutaro Shiota, Kure, Japan

- 1) Toshiro TAKAFUTA, Kure, Japan 13:20- 13:30
Filamins and cytoskeletal organization in cell migration and cancer metastasis
- 2) Yu-Lin LIN, Taiwan 13:30- 13:45
Approaches to the Cancer Metastases in Asia-- Oxaliplatin-based chemotherapy may be more beneficial to KRAS mutant metastatic colorectal cancer (mCRC)
- 3) I Gede Eka WIRATNAYA, Bali, Indonesia 13:45- 14:00
Laboratory Data Evaluation as a Prognostic Marker of Histologic Response to Neoadjuvant Chemotherapy in Osteosarcoma
- 4) Rajapandian SUBBIAH, Coimbatore, India 14:00- 14:15
Single incision laparoscopic colorectal surgeries for malignancy using conventional trocars and instruments- Ourexperience(Video lecture)
- 5) Robert Seng Cheong LIM, Singapore 14:15- 14:30
Are we able to cure metastatic colorectal cancer?

“Treatment for cancer metastasis- 2”

Chaired by Hisaya FUJIWARA, Kure, Japan

- | | | |
|----|---|--------------|
| 6) | Michinori YAMAMOTO, Kure, Japan | 14:30- 14:40 |
| | Total body irradiation using helical tomotherapy for patients with hematopoietic malignancy undergoing an allogeneic hematopoietic stem-cell transplant | |
| 7) | Xianshu GAO, Beijing, China | 14:40- 14:55 |
| | Radiation Therapy For Metastatic Cancers In China | |
| 8) | Sirima EURSRITANAKORN, Bangkok, Thailand | 14:55- 15:10 |
| | Approach to the Cancer Metastasis in Rajavithi Hospital, Thailand | |
| 9) | Muhamad THOHAR, Semarang, Indonesia | 15:10- 15:25 |
| | Usefulness of Intraoperative ultrasonography on brain metastatic tumor surgery | |

18. Coffee Break 15:25- 15:40

➤ SYMPOSIUM- 4

“Palliative care medicine”

Chaired by Minoru TAKEBAYASHI, Kure, Japan

- | | | |
|----|--|--------------|
| 1) | Miyuki NAGASHIMA, Kure, Japan | 15:40- 15:50 |
| | Effect of Pathology Clinic on Mental State and Adjustment in Breast Cancer Patients | |
| 2) | Mami OKADA-TSUCHIOKA, Kure, Japan | 15:50-16:00 |
| | How does electroconvulsive therapy work for depression? – Involvement of astrocyte-derived synaptogenic factor, thrombospondin-1- | |
| 3) | Takako NAKANISHI, Kure, Japan | 16:00- 16:10 |
| | Cancer Counseling and Pathology Clinic | |
| 4) | Seng Beng TAN, Kuala Lumpur, Malaysia | 16:10- 16:25 |
| | Mindfulness-based Supportive Therapy (MBST) – A novel psychotherapy to address suffering in palliative care | |
| 5) | Pathomphorn SIRAPRAPASIRI, Bangkok, Thailand | 16:25- 16:40 |
| | Do HIV-infected Cancer Patients Need Palliative Radiation Therapy? | |

19. Funfest for reunion 16:40- 17:00

July 13 Sunday, 2014

20. July 13 Sunday Session

Chaired by Kiyomi TANIYAMA, Kure, Japan

- | | |
|--|--------------|
| Free discussion on the prospect for the 8th K-INT | 9:00 –12:00 |
| Inspection of hospitals in Kure and Hiroshima cities | 13:00 –16:00 |

| | |
|-------------|--------------|
| Mounting: | 9:00- 10:00 |
| Viewing: | 10:00- 16:00 |
| Discussion: | 11:10- 11:40 |
| Removal: | 16:00- 16:30 |

➤ **POSTER SESSION**

- 1) Eri ISHIKAWA, et al., Fujisawa, Japan
Handling of child abuse cases by medical institutions in Japan – trend analysis of past years regarding the number of consultations with the child consultation center
- 2) Eri ISHIKAWA, et al., Fujisawa, Japan
Handling of child abuse cases by medical institutions in Japan (2): analysis of consultation numbers by types of abuse
- 3) Etsuko KAMISHIRAKI, et al., Yamaguchi, Japan
Determination of place of care for the terminally ill: Japanese medical social worker (MSW) attitudes and practices
- 4) Etsuko KAMISHIRAKI, et al., Yamaguchi, Japan
End of life care placement decisions: UK medical social worker (MSW) attitudes and practices – a pilot study
- 5) Masaomi MARUKAWA, et al., Fukuyama, Japan
Integral treatment of central airway stenosis due to poorly differentiated carcinoma in mediastinum with a Dumon stent and chemoradiotherapy
- 6) Takashi NONOSHITA, et al., Fukuyama, Japan
A case of liver metastases of gastric cancer in which S-1 plus CDDP therapy was effective and histologically complete response was obtained
- 7) Satoshi FUKUDA, et al., Fukuyama, Japan
A case report of malignant pleural mesothelioma with characteristic findings in pleural effusion
- 8) Syuntaro KOHDA, et al., Kure, Japan
Evaluation of renal function after laparoscopic partial nephrectomy with renal scintigraphy using 99m technetium- mercaptoacetyltriglycine ((99m) Tc-MAG3)
- 9) Toshihiro MATSUO, et al., Kure, Japan
Clinical Significance of Metastasectomy in Sarcoma Patients with Lung Metastases
- 10) Takahiro AMANO, et al., Kure, Japan
A case of food-induced ileus improved by aspiration with over tube of balloon endoscopy: A case report; 2nd report
- 11) Takumi MATSUMOTO, et al., Kure, Japan
Diffuse pancreatic enlargement caused by metastasis from gastric carcinoma: A case report; 2nd report
- 12) Keita KAMEDA, et al., Kure, Japan
Effect of dexamethasone on the vascular pain caused by Fosaprepitant Meglumine and Epirubicin hydrochloride administration; 2nd report
- 13) Misato WATANABE, et al., Kure, Japan
Proper use of blood products to reduce improper discarding; 2nd report
- 14) Naoko KISHIDA, et al., Kure, Japan
International Activities of Kure Medical Center and Chugoku Cancer Center; 2nd report
- 15) Mai FUJIWARA, et al., Kure, Japan
A bib-assisted oxygen inhalation is effective for babies with acute respiratory disease
- 16) Daiki TANIYAMA, et al., Kure, Japan
Auto-Analysis of Immunohistochemical Findings and One-day InstantQuality Fluorescence in Situ Hybridization Increase Quality of Breast Cancer Therapy; 2nd report
- 17) Junichi SAKANE, et al., Kure, Japan
Aberrant DNA methylation of *DLX4* and *SIM1* is a predictive marker for disease progression of uterine cervical low-grade squamous intraepithelial lesion; 2nd report
- 18) Putu Budi SUCITRA, et al., Denpasar, Indonesia
Chondroblastoma arising from the carpal and metacarpal bones: A case report
- 19) Made ARTANA, et al., Denpasar, Indonesia
Functional outcome Synovial Chondromatosis of the right knee after two steps anterior and posterior synovectomy: A case report
- 20) Ida Bagus Gede DARMA WIBAWA, et al., Denpasar, Indonesia
Non other specified (NOS) osteosarcoma on the diaphysis of femur: A case report
- 21) I Wayan Restu B SUSILA, et al., Denpasar, Indonesia
Tuberculous osteomyelitis mimicking a lytic bone tumor: Report of two cases and literature review



Proceedings

Topics:

Approach to the cancer metastasis in Asia.

Metastatic cancer is a cancer that has spread from the part of the body where it started to other parts of the body. Cancer cells have to go through several steps to spread to new parts of the body. Going through all steps means the cells that start new tumors may no longer be exactly the same as the ones in the tumor they started in. This may make them harder to treat.

Metastatic cancers may have already begun to grow when the primary cancer is first found and diagnosed. In some cases, a metastasis may be found before the primary cancer is found. If a cancer has already spread to many places when it is found, it may be very hard to figure out where it started.

Sometimes the pattern of spread cannot be explained by where things are in the body. Some cancer cells are able to find and invade certain sites far away from where they started.

Advanced cancer cannot be cured, but it can be often treated. At any stage of cancer, the goal of treatment should be clear to both a patient and his/her family. The patient should know if the goal is to cure the cancer, to slow its growth and help the patient live longer, or to relieve symptoms. This can sometimes be confusing because some treatments used to cure are also used to slow or relieves symptoms. Some people believe that nothing more can be done if the cancer cannot be cured, so they stop all treatment. But, radiation, chemotherapy, surgery, and other treatments can often slow cancer growth and help control symptoms. And relieving symptoms like pain, blocked bowels, upset stomach, and vomiting can help the patient feel better. Something can almost always be done to help maintain or improve the patient's quality of life.

A patient has the right to be the decision-maker in planning patient's treatment. Treatment choices for advanced cancer depend on where the cancer started and how much it has spread. As a general rule, cancer that has spread will need systemic therapy such as chemotherapy or hormone therapy. Local therapies such as surgery or radiation therapy, which only affect a certain part of the body, might also be needed to help prevent or relieve certain symptoms.

*Above description was largely drawn from the web of Advanced Cancer by American Cancer Society (www.cancer.org)

Through three symposiums in the 7th K-INT, “Approach to cancer metastasis for children”, “Diagnosis of cancer metastasis”, and “Treatment for cancer metastasis”, all participants will discuss about the most appropriate approach to the cancer metastasis.

Surgical approach for lung metastasis in hepatoblastoma

Sho KURIHARA¹⁾, Eiso HIYAMA¹⁾, Yoshiyuki ONITAKE¹⁾, Mizuka MIKI²⁾, Kazuhiro NAKAMURA²⁾, Hiroshi KAWAGUCHI²⁾, Masao KOBAYASHI²⁾

¹⁾Departments of Pediatric Surgery & ²⁾Pediatrics, Hiroshima University Hospital, Hiroshima, Japan

Background

The most common site of metastasis for advanced hepatoblastoma is the lung, but the role of surgical resection of pulmonary metastasis remains uncertain. In this study, we examined hepatoblastoma patients with lung metastasis to determine the long-term outcome of patients who had surgical resection of pulmonary metastatic lesions.

Methods

Patients with hepatoblastoma treated between 1994 and 2013 at Hiroshima University Hospital were reviewed. Among them, six cases had pulmonary metastasis at admission. Prognostic factors (histology, tumor margin, surgical complications, and alpha-fetoprotein) were also reviewed.

Results

Among 21 hepatoblastoma cases treated in our hospital over the past two decades, six patients presented with pulmonary metastasis. The ages at diagnosis ranged between 15 and 129 months old and serum alpha-fetoprotein levels ranged between 153,428 and 1,223,990. All cases underwent resection of primary tumors with preoperative chemotherapy. Two cases simultaneously underwent resection of pulmonary metastasis. Among these six cases, four cases received metastectomy of pulmonary lesions. Four of these six patients were survivors. In a recent case, indocyanine green (ICG) fluorescent imaging was used to detect micrometastases during surgery.

Conclusions

Pediatric surgeons vary tremendously in timing and surgical approach to the management of pulmonary metastasis in hepatoblastoma. In some cases, metastectomy is effective for advanced hepatoblastoma. In the management of pulmonary metastasis, more aggressive management of metastases using an ICG imaging system might improve the cure rates for hepatoblastoma.

Sho KURIHARA, M.D.

Attending surgeon, Department of Pediatric Surgery, Hiroshima University Hospital,
Hiroshima, Japan

EDUCATION

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

WORKING EXPERIENCE

2009-2011 Junior Resident, National Hospital Organization Kure Medical
Center and Chugoku Cancer Center, Kure, Japan

2011-2013 Resident of Pediatric Surgery, Hiroshima Prefectural hospital,
Hiroshima, Japan

2013-present Medical Doctor of Pediatric Surgery, Hiroshima University,
Hiroshima, Japan



(Memo)



Surgical strategy for intracranial malignant germ cell tumor to prevent CNS dissemination

Teruyoshi KAGEJI¹⁾, Yoshifumi MIZOBUCHI²⁾, Kohei NAKAJIMA²⁾, Shinji NAGAIHIRO²⁾

¹⁾Department of Regional Neurosurgery, Tokushima University Hospital, Tokushima, Japan, ²⁾Department of Neurosurgery, School of Medicine, The University of Tokushima, Tokushima, Japan

Purpose

It is well known that an intracranial malignant germ cell tumor has poor prognosis due to CNS metastasis, especially CSF dissemination. The strategy to prevent metastasis is very important as an initial treatment.

Patients

Since 1998, we have had 21 patients with an intracranial malignant germ cell tumor. These consisted of an intermediate group (IG) with eight cases, and a poor group (PG) with 13 cases. Eight cases were suprasellar, nine in the pineal gland and four in the basal ganglia. NAT (neo-adjuvant therapy), which is preceding chemotherapy before surgery, was performed in ten cases which presented with serum β -HCG of over 500 mIU/ml or AFP 500 ng/ml and a reduced teratoma component in neuro-imagings. Radical surgery was done in another 11 cases. The chemotherapy regimen was CARE for IG and ICE treatment for PG. Since 2006, we have shifted the chemotherapy from ICE (8 patients) to the JCO2004 regimen (5 patients) to strengthen PG chemotherapy.

Results

The total follow-up period was 6.2 years. Two patients showed rapid tumor growth after chemotherapy in so called "growing teratoma syndrome". Four patients in NAT (40%) demonstrated complete remission after only chemotherapy. Five of eight in ICE (62%) died, none died in the JCO 2004 regimen. All patients in IG survived without tumor recurrence. The median survival time of PG was 7.6 years, and 3-ys, 5-ys and 10-ys at 65%, 65%, and 49%, respectively.

Conclusions

When serum β -HCG and AFP was at a high level at initial in the intracranial germ cell tumor, NAT was very effective. In comparison, in the cases of mild elevation of tumor markers and when there is a teratoma component in neuro-imagings, radical surgery should be done as an initial treatment before chemotherapy.

Teruyoshi KAGEJI, M.D., Ph D

Professor, Department of Regional Neurosurgery, Tokushima University Hospital,
Tokushima, Japan

EDUCATION

- 1988 M.D., School of medicine, The University of Tokushima, Tokushima,
Japan
- 1995 Ph.D., School of medicine, The University of Tokushima, Tokushima,
Japan

WORKING EXPERIENCE

- 1997-2000 Staff Neurosurgeon, Department of neurosurgery, The University of
Tokushima, Tokushima, Japan
- 2000-2009 Assistant professor, Department of neurosurgery, The University of
Tokushima, Tokushima, Japan
- 2009-2011 Associate professor, Department of neurosurgery, The University of
Tokushima, Tokushima, Japan
- 2011-present Professor, Department of Regional Neurosurgery, Tokushima
University Hospital, Tokushima, Japan



(Memo)



Four cases of pediatric renal malignancy with intravascular extension

Yasuo NAKAHARA, Takafumi GOTO, Shuuichi KATAYAMA, Jyunko MANAKO, Kosuke TOYOOKA, Yoshie DAITOKU

Department of Pediatric Surgery, National Hospital Organization Okayama Medical Center, Okayama, Japan

Pediatric renal malignant tumor has a tendency to invade veins in the form of tumor thrombus into the inferior vena cava, and even into the right atrium and ventricle. The treatment strategy for these tumors is still controversial. We report four cases treated in our institution. Case 1 was a stage III nephroblastoma with intracardiac tumor extension and the tumor was resected under cardiopulmonary bypass with hypothermic circulatory arrest. Case 2 was a stage IV nephroblastoma with inferior vena caval extension and the tumor was resected by side clamping of the inferior vena cava after neoadjuvant chemotherapy. Case 3 was a stage IV malignant rhabdoid tumor of the kidney with intracardiac tumor extension and the tumor was resected under cardiopulmonary bypass after neoadjuvant chemotherapy. Case 4 was a stage IV nephroblastoma with intracaval extension and the tumor was resected with partial combined resection of the inferior vena cava after neoadjuvant chemotherapy and radiotherapy. Apart from Case 3, all the other cases are still alive and disease free. There were no complications during neoadjuvant chemotherapy in our three cases. It is important to adequately initially investigate the extent of the tumor thrombus and choose an appropriate procedure depending on the extent of tumor thrombus after neoadjuvant chemotherapy.

Yasuo NAKAHARA, M.D.

Chief of Pediatric surgery, National Hospital Organization Okayama Medical Center,
Okayama, Japan

EDUCATION

2000 M.D., Okayama University school of medicine, Okayama, Japan

WORKING EXPERIENCE

2000-2001 Resident, Department of Anesthesiology, Okayama University
Hospital, Okayama, Japan

2001-2002 Resident, Hiroshima City Hospital, Hiroshima, Japan (Anesthesia
and critical care medicine)

2002-2004 Resident, Kawasaki Medical College Hospital, Kurashiki, Japan
(Pediatric surgery)

2004-2007 National Hospital Organization Okayama Medical Center, Okayama,
Japan

2007-2008 North America (Toronto, Boston, Cincinnati, Vancouver)

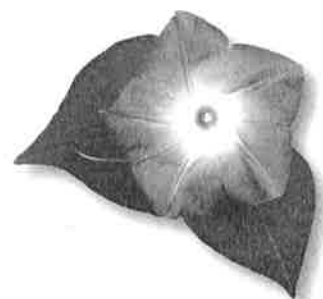
2008-2011 National Hospital Organization Okayama Medical Center, Okayama,
Japan

2011-2012 Kagawa Children's Hospital, Zentsuji, Japan
Juntendo University Hospital, Tokyo, Japan

2013-present Pediatric Surgeon, National Hospital Organization Okayama
Medical Center, Okayama, Japan



(Memo)



Intracranial Germ Cell tumor in Thai children: Review new cases in service during 2011-2014 at QSNICH

Paveen TADADONTIP

Queen Sirikit National Institute of Child Health (QSNICH), Bangkok, Thailand

Queen Sirikit National Institute of Child Health (QSNICH) is a tertiary care center for pediatric patients. Approximately 300 neurosurgical procedures were operated each year. We have neurosurgeon and oncologist for service of malignant brain tumor patients but for radiotherapy, patients were referred to National Cancer Institute of Thailand. During 2011-2014, there were 9 cases of pineal region tumor. 3 cases were germinoma, 2 cases were mixed germ cell tumors (immature teratoma and germinoma), 2 cases were mature teratoma, 1 case was atypical teratoid rhabdoid tumor and 1 case was tectal plate glioma. There were 4 cases of extrapineal germ cell tumor including mixed germ cell tumor (immature teratoma and germinoma) at suprasellar region, yolk sac tumor at cerebellar hemisphere, mature teratoma at cerebellar hemisphere and mature teratoma at left lateral ventricle. All mature teratoma cases were well responded with complete surgical removal. Germinoma cases were well responded with radiotherapy and chemotherapy. In mixed germ cell tumors with immature teratoma component group. 1 case expired at 2 week postoperative due to Acinetobacter sepsis. 1 case was referred to receive adjuvant therapy and followed up at another hospital. 1 case had multiple recurrent episodes after received near total surgical removal, radiotherapy and chemotherapy. Pathological finding of last operation show that tumor had malignant transformation into undifferentiated high grade sarcoma. Patient expired 4 years after diagnosis. In yolk sac tumor at cerebellar case, preoperative diagnosis was pilocytic astrocytoma and gross total surgical removal was attempted. After receive pathological diagnosis, patient were treated with chemotherapy and had a favorable outcome. In total 11 cases of intracranial germ cell tumor, 3 cases (27%) were germinoma, 3 cases (27%) were mixed germ cell tumor, 4 cases (36%) were mature teratoma and 1 case (9%) was yolk sac tumor. Treatment and prognosis vary among neoplasm types.

Paveen TADADONTIP, M.D.

Neurosurgeon, Neurosurgical unit, Surgical department, Queen Sirikit National Institute of Child Health (QSNICH), Bangkok, Thailand

EDUCATION

2002 M.D., Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

WORKING EXPERIENCE

2005-2010 Resident, Prasat Neurological Institute, Bangkok, Thailand
2010-present Neurosurgeon, Neurosurgical unit, Surgical department, Queen Sirikit National Institute of Child Health (QSNICH), Bangkok, Thailand



(Memo)



Significance of combining diffusion-weighted MRI with Gd-EOB-DTPA-enhanced MRI for detection of liver metastases

Wataru FUKUMOTO, Yuko NAKAMURA, Toru HIGAKI, Yoko KAICHI, Shuji DATE, Kazuo AWAI

Diagnostic Radiology, Hiroshima University Hospital, Hiroshima, Japan

Objective

To compare the liver metastases detection rates between Gd-EOB-DTPA-enhanced MRI (EOB-MRI) with and without diffusion-weighted MRI (DWI).

Materials and Methods

We included 30 patients with primary malignant tumors—18 patients with liver metastases and 12 patients without liver metastases—who underwent EOB-MRI. Five board-certified radiologists and five radiology residents participated in the observer performance study. Observers specified the locations and rated the probability of the presence of metastatic nodules on the EOB-MRI with and without DWI. We used the jackknife alternative free-response receiver operating characteristic (JAFROC) analysis to compare performance.

Results

All radiologists obtained mean AUC values for EOB-MRI with and without DWI; 0.91 ± 0.08 and 0.85 ± 0.11 [SD], respectively. In the random reader and random case analysis, the AUC values obtained for EOB-MRI with DWI was significantly larger than that obtained without DWI ($p = 0.039$). For residents, the mean AUC values for EOB-MRI with and without DWI were 0.87 ± 0.09 and 0.78 ± 0.13 , respectively; this difference was statistically significant ($p = 0.045$). For board-certified radiologists, the mean AUC values for EOB-MRI with and without DWI were 0.96 ± 0.01 and 0.92 ± 0.02 , respectively; this difference was not statistically significant ($p = 0.092$).

Conclusion

Combined EOB-MRI and DWI improved the ability of radiology residents in detecting liver metastases.

Wataru FUKUMOTO, M.D.

Resident, Hiroshima University Hospital, Hiroshima, Japan

EDUCATION

2009 M.D., Tsukuba University school of medicine, Ibaraki, Japan

WORKING EXPERIENCE

2009-2011 Resident, Hiroshima University Hospital, Hiroshima, Japan

2011-2013 Resident, Department of Radiology, Hiroshima City Hospital,
Hiroshima, Japan

2013-present Resident, Department of Diagnostic Radiology, Hiroshima University
Hospital, Hiroshima, Japan



(Memo)



Diagnostic Capability of Gd-EOB-MRI for the Diagnosis of Hepatocellular Carcinoma (HCC): Comparison with Multi-detector CT (MDCT)

Naoyuki TOYOTA, Noriaki MATSUURA, Naoko AKIYAMA, Hiromi MIYOSHI, Takahiro SUEOKA

Diagnostic Radiology, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

Purpose

The purpose of this study is to evaluate the diagnostic capability of gadoxetate disodium (Gd-EOB)-MRI for the detection of hepatocellular carcinoma (HCC) compared with multidetector CT (MDCT).

Materials and methods

Fifty patients with 57 surgically proven HCCs were evaluated by Gd-EOB-MRI and MDCT. Two board-certified radiologists evaluated MR and CT on a lesion-by-lesion basis, retrospectively. Mean age was 68.8 years old. There were 8 well differentiated HCCs, 37 moderately differentiated HCCs, and 12 poorly differentiated HCCs. We analyzed sensitivity by grading a 5-point scale, degree of arterial enhancement, and histological grades' differences in diffusion-weighted image (DWI).

Results

The sensitivity of Gd-EOB-MRI was higher than that of MDCT, especially for HCCs that were 1 cm in diameter or smaller. The hepatobiliary phase was useful in detecting small HCC. We had a few cases in which it was difficult to judge HCC in the arterial enhancement among MRI and MDCT. In diffusion-weighted images, well differentiated HCC tended to show low signal intensity, and poorly differentiated HCC tended to show high signal intensity. In moderately differentiated HCCs, the mean diameter of the high signal intensity group was larger than that of the low signal intensity group (24.5 mm vs. 15.8 mm).

Conclusion

Gd-EOB-MRI tended to show higher sensitivity compared to MDCT in the detection of HCC.

Naoyuki TOYOTA, M.D., PhD.

Director of Department of Diagnostic Radiology, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

EDUCATION

1990 M.D., Hiroshima University School of Medicine, Hiroshima, Japan
2002 Ph.D., Hiroshima University School of Medicine, Hiroshima, Japan

WORKING EXPERIENCE

2002-2009 Staff, Hiroshima University School of Medicine, Hiroshima, Japan
2009-present Director, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan



(Memo)



A Novel Mouse Breast Tumor Cell Line for Spontaneous Metastasis, TUBO-P2J

SaeGwang PARK¹⁾, Hyunkeun SONG¹⁾, TaeOh KIM²⁾, Jin-Hee PARK¹⁾, Mi Seon KANG³⁾, Eric D. MORTENSON⁴⁾, Yang-Xin FU⁴⁾

¹⁾Department of Microbiology and Immunology, INJE University College of Medicine, Busan, Republic of Korea, ²⁾Department of Internal Medicine, Haeundae Paik Hospital, INJE University College of Medicine, Busan, Republic of Korea, ³⁾Department of Pathology, INJE University College of Medicine, Busan, Republic of Korea, ⁴⁾Department of Pathology and Committee on Immunology, University of Chicago, Chicago, IL, USA

Tumor metastasis is a main cause of death in cancer patients. A relevant experimental model is essential in studies for diagnosis and therapeutics of metastatic cancers. This study reports a newly established spontaneous metastatic mouse breast tumor model, TUBO-P2J, derived from non-metastatic TUBO cells. TUBO-P2J cell line metastasis within 14 days implantation and metastatic lung nodules can be detected at 28 days by non-invasive imaging modality, small-animal positron emission tomography. TUBO-P2J cell was highly migrative and invasive than original TUBO cell and showed characters of epithelial-mesenchymal transition. This immunocompetent spontaneous metastasis model can be added in animal models useful in study for mechanism of tumor metastasis and immunological aspects in metastasis such as immune surveillance and immunotherapies.

SaeGwang PARK, M.D., Ph.D.

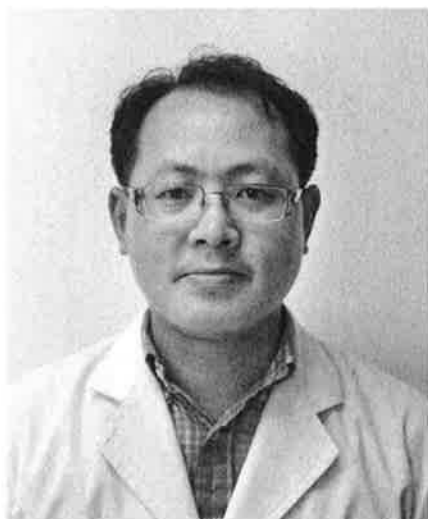
Professor, Lab for Medical Oncology, Department of Immunology and microbiology, College of Medicine, INJE University, Busan, Korea

EDUCATION

- 1994 M.D., INJE University College of Medicine, Busan, Korea
- 2005 Ph.D., Seoul National University school of medicine, Seoul, Korea

WORKING EXPERIENCE

- 2000-present Professor, Department of Immunology and microbiology. College of Medicine, INJE University, Busan, Korea
- 2007-2009 Visiting Professor, University of Chicago, school of medicine, Chicago, USA



(Memo)



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

Yukako YAGI

Massachusetts General Hospital & Harvard Medical School, Boston, MA, USA

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 by an automated sectioning machine from formalin-fixed paraffin-embedded blocks and stained with H&E. Serial sections were scanned at 0.33 $\mu\text{m}/\text{pixel}$ or 0.45 $\mu\text{m}/\text{pixel}$ using Whole Slide Imaging Scanners. 3D reconstruction was done using the algorithms developed by our collaborator. 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 applications in Kidney such as glomeruli Detection and volume measurement, and in Brain such as multi modality 3D imaging will be presented.

Yukako YAGI, PhD

Assistant Professor of Pathology, Harvard Medical School, Director of the MGH Pathology Imaging and Communication Technology Center, Massachusetts General Hospital, Affiliated Faculty of Wellman Center for Photomedicine, Massachusetts General Hospital, Boston, USA

EDUCATION

- 1987 Bachelor of Science, Tokyo Science University, Tokyo, Japan
 2006 Doctor in Medicine, Tokyo Medical University, Tokyo, Japan

WORKING EXPERIENCE

- 1987 Nikon Corporation, Tokyo, Japan
 1995 Visiting Scholar, Research Systems Engineer, Department of Radiology, The Imaging Science and Information Systems Center, Department of Radiology, Georgetown University, Washington DC, USA
 1997 Clinical Instructor of Pathology, University of Pittsburgh Medical School & Director of Technical Management of University of Pittsburgh Medical Center Health System, Pittsburgh, PA, USA
 2007 Instructor of Pathology, Harvard Medical School & Massachusetts General Hospital. Boston, MA, USA
 2008 Assistant Professor of Pathology, Harvard Medical School & Assistant Pathologist. Massachusetts General Hospital, Boston, MA, USA
 Director of the MGH Pathology Imaging and Communication Technology Center, Affiliated Faculty of Wellman Center for Photomedicine, MGH



(Memo)



Filamins and cytoskeletal organization in cell migration and cancer metastasis

Toshiro TAKAFUTA

Department of Hematology, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

The metastatic process of cancer cells requires cytoskeletal reorganization and changing adhesive molecules on the surface membrane. Cancer cells can undergo transition between mesenchymal (elongated) and amoeboid (non-apoptotic membrane blebbing) migration modes. Filamins may play important roles in this morphological change. The human filamin family consists of three ~280 kD actin-binding paralogs (A, B, and C). Filamin A, first to be discovered in 1975, has been studied extensively, and a human melanoma cell line (M2 cells) lacking filamin A has been described. M2 cells exhibit abnormal blebbing and are deficient in their capacity to adhere, spread and migrate. A7 cells, a stable clone derived from M2 cells transfected with filamin A, no longer bleb abnormally and have regained the ability to spread. We identified filamin B as a binding molecule of platelet glycoprotein Iba (JBC, 273, 17531-8, 1998), and observed its ability to restore spreading phenotype in M2 cells. Filamins are known to serve as scaffolds for over 90 binding partners, including receptors and signaling molecules. Mutations in the filamin genes result in congenital disorders. Filamin mutations are also identified in human breast and colon cancers. We also identified FBLP-1 (filamin-binding LIM protein-1: FBLP-1) as a binding molecule of filamin B (JBC, 278, 12175-81, 2003). Interestingly, transfection of FBLP-1 into culture cells promoted stress fiber formation, and both FBLP-1 and filamin B localized to stress fibers in the transfected cells. The association between filamins and various binding partners may play an important role in cytoskeletal function, cell adhesion, and cell motility. Understanding of the abnormalities of filamins and partner molecules in cancer cells may provide a new strategy for treating cancer.

Toshiro TAKAFUTA, M.D., Ph.D.

Director, Department of Hematology, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

EDUCATION

- 1987 M.D., Hiroshima University, school of medicine, Hiroshima, Japan
1994 Ph.D., Hiroshima University, postgraduate school of medicine, Hiroshima, Japan

WORKING EXPERIENCE

- 1987-1990 Resident, Department of Internal Medicine, Kobe General Hospital, Kobe, Japan
1994-1996 Staff, Department of Internal Medicine, Hiroshima City Hospital, Hiroshima, Japan
1996-1999 Postdoctoral Fellow, Department of Hematology, Jefferson Medical College, Philadelphia, USA
1999-2001 Research Assistant Professor, Department of Hematology, Jefferson Medical College, Philadelphia, USA
2001-2004 Assistant Professor, Department of Clinical and Laboratory Medicine, Yamanashi University, Kofu, Japan
2004-2007 Staff, Department of Hematology and Clinical Immunology, Nishi-Kobe Medical Center, Kobe, Japan
2007-2013 Director, Department of Hematology and Clinical Immunology, Nishi-Kobe Medical Center, Kobe, Japan
2013-present Director, Department of Hematology, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan



(Memo)



Approaches to the Cancer Metastases in Asia-- Oxaliplatin-based chemotherapy may be more beneficial to *KRAS* mutant metastatic colorectal cancer (mCRC)

Yu-Lin LIN, Yi-Hsin LIANG, Jia-Huei TSAI, Jau-Yu LIAU, Jin-Tung LIANG, Been-Ren LIN, Ji-Shiang HUNG, Liang-In LIN, Li-Hui TSENG, Yih-Leong CHANG, Kun-Huei YEH, Ann-Lii CHENG

Department of Oncology, National Taiwan University Hospital, Taipei, Taiwan

KRAS mutant metastatic colorectal cancer (mCRC) has unmet needs because it has fewer treatment options than *KRAS* wild-type mCRC. To identify better regimens in currently available chemotherapy may be essential to further improve treatment outcomes of *KRAS* mutant mCRC. We hypothesized that oxaliplatin-based regimens may be more beneficial to *KRAS* mutant than wild-type mCRC patients.

KRAS was knocked-down in *KRAS*-mutant CRC cells (DLD-1^{G13D} and SW480^{G12V}) and overexpressed in *KRAS*-wild-type CRC cells (COLO320DM) to generate paired CRC cells. In *KRAS* wild-type CRC cells (COLO320DM), *KRAS* overexpression caused excision repair cross-complementation group 1 (ERCC1) down regulation in protein and mRNA levels, and enhanced oxaliplatin sensitivity. In contrast, in *KRAS* mutant CRC cells (DLD-1^{G13D} and SW480^{G12V}), *KRAS* knocked-down led to ERCC1 up regulation and increased oxaliplatin resistance.

Our second clinical studies demonstrated that in patients who received first-line oxaliplatin-based regimens, the first-line PFS was significantly longer in *KRAS* mutant patients than that in *KRAS* wild-type patients. The median PFS was 8.5 months in *KRAS* mutant versus 5.8 months in *KRAS* wild-type patients ($P = 0.008$). In multivariate analyses, *KRAS* mutation remains an independent predictive factor for longer PFS in first-line oxaliplatin-based regimens.

Our third study unveiled that the OS in *KRAS* mutant patients who had used oxaliplatin-based regimens was 28.8 months versus 17.8 months in *KRAS* mutant patients who had never-used oxaliplatin-based regimens ($P = 0.026$). Notably, OS in *KRAS* wild-type mCRC patients who had used oxaliplatin-based regimens was not significantly longer than that in *KRAS* wild-type mCRC patients who had never used oxaliplatin-based regimens ($P = 0.25$). In multivariate analyses, patients who had used oxaliplatin-based regimens remains an independent prognostic factor for longer OS in *KRAS* mutant mCRC patients.

In conclusion, oxaliplatin-based regimens may be more beneficial to *KRAS* mutant metastatic colorectal cancer (mCRC).

Yu-Lin LIN, M.D.

Department of Oncology, National Taiwan University Hospital, Taipei, Taiwan

EDUCATION

- 1992-1999 M.D., Chung Shan Medical University school of medicine, Taichung, Taiwan
- 2007 Visiting Scholar, Department of Medicinal Chemistry, College of Pharmacy, Ohio State University, Ohio, U.S.A
- 2007 Clinical fellow in Phase I clinical trial center, Division of Hematology and Oncology, Department of Internal Medicine, Ohio State University Comprehensive Cancer Center, Ohio, U.S.A
- 2008-2014 Ph.D., Graduate Institute of Clinical Medicine, National Taiwan University, school of medicine, Taipei, Taiwan

WORKING EXPERIENCE

- 2000-2003 Resident in Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan
- 2003-2005 Chief Resident in the Department of Oncology, National Taiwan University Hospital, Taipei, Taiwan
- 2005-present Attending Physician in the Department of Oncology, National Taiwan University Hospital, Taipei, Taiwan



(Memo)



Laboratory Data Evaluation as a Prognostic Marker of Histologic Response to Neoadjuvant Chemotherapy in Osteosarcoma

I Gede Eka WIRATNAYA

Department of Orthopedic & Traumatology Sanglah Hospital, Udayana University, Denpasar, Bali, Indonesia

Purpose: to assess whether the laboratory data influence the histologic response of osteosarcoma after had neoadjuvant chemotherapy.

Methods: a systematic review with binary logistic regression test to assess variable test of laboratory parameter (Lactate Dehydrogenase, Alkaline Phosphatase, C-Reactive Protein, Erythrocyte Sedimentation Rate, Lymphocyte, Monocyte) in relationship with histologic response (HUVOS score).

Result: both monocyte and lymphocyte could predict the status of HUVOS score (chi square 12.217; $p = 0.016$ with $df = 4$). Both first and second phase of Erythrocyte Sedimentation Rates as a set of predictors could not predict the status of HUVOS grade (chi square 4.551; $p = 0.103$ with $df = 2$). Lactate Dehydrogenase, Alkaline Phosphatase, C-Reactive Protein test showed the coefficient of determination demonstrated a strong relationship ($R^2 = 0.705$ and 1.000 , respectively) that all of the three predictors could hardly predict the target population osteosarcoma's HUVOS score.

Discussion: the factor that strongly influence the HUVOS score increase was C-Reactive Protein ($\text{Exp}(B) = 63.253$). However, it was not statistically significant ($p = 0.998$). Lactate Dehydrogenase, Alkaline Phosphatase seemed to exert a reversed relationship.

I Gede Eka WIRATNAYA

Department of Orthopedic & Traumatology Sanglah Hospital, Udayana University,
Denpasar, Bali, Indonesia

EDUCATION

- 2000 M.D., Udayana University Medical Faculty, Denpasar, Indonesia
- 2010 Orthopedic & Traumatology specialist, Indonesia University,
Jakarta, Indonesia

WORKING EXPERIENCE

- 2005-2010 Resident Orthopedic & Traumatology, Indonesia University,
Jakarta, Indonesia
- 2010-present Staff Surgeon, Sanglah Hospital, Udayana University, Denpasar,
Indonesia



(Memo)



Single incision laparoscopic colorectal surgeries for malignancy using conventional trocars and instruments- Our experience (Video lecture)

Rajapandian SUBBIAH

GEM Hospital and Research centre, Coimbatore, India

Introduction

Single incision laparoscopy is rapidly gaining acceptance as evidenced by increasing body of reported literature. As the process undergoes refinement in terms of techniques, special access ports and instrumentations, the cost of these special devices remains an issue especially for developing economies. We have followed the procedure of single incision multiport surgery as a mean to obviate the need for special access ports.

Discussion

A prospective case series of single incision multiport laparoscopic colorectal resections for malignancy using conventional laparoscopic trocars and instruments is described. Here we describe the procedure of single incision right hemicolectomy, anterior resection and total proctocolectomy with ileal pouch anal anastomosis and also NOSE (natural orifice specimen extraction technique). Steps described includes patient setup, incision and flap raising, Rectosigmoid mobilization, Splenic flexure and transverse colon mobilization, hepatic flexure and ascending colon mobilization, total mesorectal excision and pouch construction. Four trocars were placed in a single transumbilical incision. The bowel was mobilized laparoscopically and vessels were controlled intracorporeally with either intra or extracorporeal anastomosis. The average incision length was 3.2 cm (2.5-4.0 cm). The average length of stay was 4.5 days (range 3-8 days). Histopathology showed adequate proximal and distal resection margins with an average lymph node yield of 25 nodes (range 16-30 nodes).

Advanced colorectal procedures through single incision approach is being increasingly reported. Most of the series involves use of special access devices and instruments. Using the conventional laparoscopic trocars and instruments within a single incision site, we have progressed from simpler to advanced restorative colorectal procedures like total proctocolectomy with IPAA. In this approach we incur no additional cost apart from the marginal increase in operating time. The radicality of surgery is not compromised as evidenced by the lymph node yield and tumor clearance.

Conclusion

Single incision multiport laparoscopic colorectal surgery for malignancy is feasible without extra cost or specialized ports/instrumentation. It does not compromise the oncological radicality of resection. Larger series with long term follow up is needed to validate this approach.

Rajapandian SUBBIAH, MS, FRCS (Ed), DNB (GI Surg)

Senior consultant and Head, Departments of coloproctology and Minimal invasive surgery, GEM Hospital and Research center Coimbatore, India

EDUCATION

| | |
|------|--|
| 1992 | MBBS, Stanley medical college, Chennai, India |
| 1997 | MS (Gen Surg), Stanley medical college, Chennai, India |
| 1999 | FRCS (Gen Surg), University of Edinburgh, United Kingdom |
| 2007 | DNB (GI Surg), National board of examination, India |

WORKING EXPERIENCE

| | |
|--------------|---|
| 2001- 2004 | Senior Registrar, GEM Hospital & Research centre, Coimbatore, India |
| 2008-2011 | Consultant, GEM Hospital & Research centre, Coimbatore, India |
| 2012-present | Senior consultant & Head, Departments of coloproctology and Minimal invasive surgery, GEM Hospital & Research centre, Coimbatore, India |

(Memo)



Are we able to cure metastatic colorectal cancer?

Robert Seng Cheong LIM

Department of Hematology-Oncology, National University Hospital, Singapore

Metastatic colorectal cancer is largely incurable. Advances in systemic treatment have led to further improvements in disease control, improvement in symptoms and prolonging survival. However, disease progression ultimately occurs as does resistance to treatment. A specific subgroup of patients with metastatic colorectal cancer may yet achieve good long term remissions and possibly even cures. The liver is the most common site of metastases and with the unique circulatory system that drains the bowel via the liver, the latter may be the only site of distant metastases. Surgery for this has been the mainstay of improving such outcomes. The lecture will also focus on chemotherapy that helps patients achieve such surgery.

Robert Seng Cheong LIM

Department of Hematology-Oncology, National University Hospital, Singapore

EDUCATION

- 1989 B.Sc, University of St Andrews, St Andrews, U.K. (Medical Science)
1991 M.B.Ch.B., University of Edinburgh, Edinburgh, U.K.

WORKING EXPERIENCE

- 1991-1992 Internship in Medicine and Surgery, The Royal Infirmary of Edinburgh, Edinburgh, UK
1992-1995 Internship and Residency in Internal Medicine, The New York Hospital – Cornell Medical Center, NY, USA
1995-1998 Fellow in Hematology & Oncology, The New York Hospital – Cornell Medical Center, NY, USA
1998-1999 Senior Registrar, Department of Medical Oncology, National University Hospital, Singapore
2000-2005 Consultant, Department of Hematology-Oncology, National University Hospital, Singapore
2000-2005 Director of Clinical Services, Department of Hematology-Oncology, National University Hospital, Singapore
2005-2005 Acting Chief, Department of Hematology-Oncology, National University Hospital, Singapore
2005-2011 Chief, Department of Hematology-Oncology, National University Hospital, Singapore
2010-2012 Associate Director (Clinical), National University Cancer Institute, Singapore (NCIS), National University Health System
2006-present Senior Consultant, Department of Hematology-Oncology, National University Hospital, Singapore



(Memo)



Total body irradiation using helical tomotherapy for patients with hematopoietic malignancy undergoing an allogeneic hematopoietic stem-cell transplant

Michinori YAMAMOTO

National Hospital Organization Kure Medical Center and Chugoku Cancer Center,
Kure, Japan

Hematopoietic stem-cell transplant (HSCT) is an important treatment option for hematopoietic malignant diseases. A conditioning regimen is required prior to HSCT for the purpose of creating space for the transplanted hematopoietic stem-cells, killing any malignant cells, and suppressing the immune system to prevent rejection of the allogeneic HSCT. Two methods are used for this conditioning regimen: chemotherapy alone, or a combination of total body irradiation (TBI) and chemotherapy. In 1998, the combination of TBI and chemotherapy was shown to have superior treatment outcomes for HSCT conditioning compared to chemotherapy alone. Over the past ten years, however, chemotherapy has advanced tremendously in the development of parenteral agents. Parenteral agents have stable pharmacokinetics and there are less risks of engraftment issues, relapse, or toxicity than oral agents. Therefore, it is not apparent whether the combination of TBI and chemotherapy still demonstrates superior treatment outcomes for HSCT conditioning compared to chemotherapy alone. Looking over the past 100 years, numerous techniques have been developed worldwide to perform TBI. Most existing techniques are based on conventional megavoltage radiotherapy equipment. However, insufficient customization of the three-dimensional dose distribution is considered the greatest limitation of these methods. Intensity-modulated radiation therapy (IMRT) is the most advanced method for delivering external beam radiotherapy using photon radiation and has been improved by recent advances in technology. IMRT allows for dramatic customization of the three-dimensional dose distribution and there is less risk of engraftment issues, relapse, or toxicity than conventional treatment. Helical tomotherapy (HT) is intensity-modulated rotational therapy using a narrow CT-like fan beam modulated by a binary collimator. Fan beam rotation and couch are in simultaneous motion so that the source of radiation describes a helical pattern with respect to the patient. We present a new TBI approach using HT.

Michinori YAMAMOTO, M.D., PhD.

Director of radiation oncology, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

EDUCATION

- 1987 M.D., Okayama University school of medicine, Okayama, Japan
 1999 Ph.D., Okayama University school of medicine, Okayama, Japan

WORKING EXPERIENCE

- 1987- Resident, Okayama University Medical School, Department of Radiology, Okayama, Japan
 1988- Staff, Sanyoso Hospital, Department of Radiology, Yamaguchi, Japan
 1991- Staff, Okayama University Medical School, Department of Radiology, Okayama, Japan
 1993- Clinical fellow, Cancer Institute Hospital, Department of Radiation Oncology, Tokyo, Japan
 1994- Staff, Tokyo Dental and Medical University, Department of Radiology, Tokyo, Japan
 1995- Staff, Okayama University Medical School, Department of Radiology, Okayama, Japan
 1996- Instructor, Okayama University Medical School, Department of Radiology, Okayama, Japan
 1999- Staff, Kure national Hospital, Department of Radiation Oncology, Kure, Japan
 2000- Director, Department of Radiation Oncology, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan



(Memo)



Radiation Therapy For Metastatic Cancers In China

Xianshu GAO

Peking University First Hospital, Beijing, China

Peking University Third Hospital, Beijing, China

Air Force General Hospital, PLA, Beijing, China

Malignant tumor will eventually have distant metastases. Although the treatments for metastatic cancers are often palliative therapies, treatment plan should be conducted comprehensively according to the general condition, pathological type, area of primary lesions, area of metastatic lesions, previous treatments so as to reach the maximum effect. As one of the treatment modalities, radiotherapy can improve the quality of life and prolong survival for patients with metastatic cancers.

Radiation in combination with surgery and steroid therapy is a cornerstone of management of brain metastases. Whole brain radiation therapy (WBRT) using conventional external beam radiation is most commonly employed. Clinical trials show that objective response rate of WBRT is 60% and it can prolong survival. Metastatic lesions in brain is considered ideal targets for stereotactic radiosurgery (SRT) like gamma knife. It can be used in the adjuvant or upfront settings for patients with limited number of intracranial metastatic lesions. Many clinical trials show that 1 year local control rate of SRT for brain metastasis is up to 71-79%.

Lung metastasis often occurs by hematogenous metastasis. SRT can also be used to treat lung metastasis. In some cases in China, even for lung metastasis with extensive lesions, it may achieve a preferable effect. In China, treatment for lung metastasis by implantation of radioiodine-125 particle has been carried out for 10 years and has yielded some encouraging results.

Bone is also the common area of metastases, accounting for fifty percent. Radiotherapy is very effective to deal with pain caused by local bone metastasis. The remission rate of pain could be 80%-90%. As a special treatment modality, interstitial brachytherapy is an alternative choice for patients with metastatic lesions.

This speech mostly focuses on researches and practice of techniques of radiation therapy for metastatic cancers in China.

Xianshu GAO, M.D., PhD

Director, Professor, Department of Radiation Oncology, Peking University First Hospital, Beijing, China

EDUCATION

1979-1984 Undergraduate, Hebei Medical University, Hebei, China
1992-1995 Ph.D., Department of Medicine of Okayama University, Okayama, Japan

WORKING EXPERIENCE

1987-1992 Resident, Department of Radiation Oncology, Fourth Hospital of Hebei Medical University, Hebei, China
1996-2005 Director, Department of Radiation Oncology, Fourth Hospital of Hebei Medical University, Hebei, China
2005-present Director, Department of Radiation Oncology, Peking University First Hospital, Beijing, China



(Memo)



Approach to the Cancer Metastasis in Rajavithi Hospital, Thailand

Sirima EURSRITANAKORN

Department of Radiation Oncology, Rajavithi Hospital, Bangkok, Thailand

Metastatic cancer is a cancer that has spread from the primary site to other part of the body through the blood stream or the lymph system. If the cells travel through the lymph system, they may end up in nearby lymph nodes or spread to the other organs. More often, cancer cells that break off from the main tumor travel through the bloodstream, they can go to any part of the body. They need to be able to grow (proliferation) and avoid attack from the immune system. Angiogenesis or stimulate the growth of new blood vessels to obtain blood supply to continue tumor growth.

Treatment decision by Multidisciplinary team tumor conference. The choice of treatment depend on the type of primary cancer, size, location, number of metastatic tumors, age, performance status, and previous treatment. Treatment may be systemic treatment, local treatment, combine of treatment, or palliative care and pain management. Palliative Radiotherapy for cancer metastasis such as Brain metastasis, Bone metastasis, Spinal cord compression, SVC obstruction, and bleeding tumor.

Sirima EURSRITANAKORN, M.D

Radiation Oncologist, Rajavithi Hospital, Bangkok, Thailand

EDUCATION

- 1997 M.D., Chiang Mai University, Chiang Mai, Thailand
- 2001 Diploma of Thai Board of Radiology (General Radiology), Bangkok, Thailand
- 2003 Diploma of Thai Board of Family Medicine, Bangkok, Thailand
- 2006 Diploma of Thai Board of Radiology (Radiotherapy), Bangkok, Thailand

WORKING EXPERIENCE

- 1997-2001 Resident, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
- 2001-present Staff Radiation Oncologist, Rajavithi hospital, Bangkok, Thailand



(Memo)



Usefulness of Intraoperative ultrasonography on brain metastatic tumor surgery

Muhamad THOHAR, Zainal MUTTAQIN, Erie BPS ANDAR, Happy KURNIA, Gunadi KUSNARTO, Dody PRIAMBADA

Department of Neurosurgery, Diponegoro University, Kariadi General Hospital, Semarang, Indonesia

Purpose

The aim of this report was to evaluate the usefulness of intraoperative ultrasonography (IOUSG) on operative management of brain metastatic tumors during intervention.

Methods

A real time ultrasound scanner with 3 or 5 MHz transducer was used for this study in all cases. The tip of the ultrasound probe was placed on intact cranial dura mater and then moved to determine tumor border, vasculariation and tumor density.

Results

All lesions were localized and tumors characteristic was identified. IOUSG was usefull for minimal corticotomy during intervention to protect eloquent cortex.

Conclusions

Intra operative ultrasonography can easily detect the location of intracranial tumors in brain. Importance information about the characteristic of brain tumor can be obtained.

Key Words

intraoperative ultrasonography, metastatic brain tumor

Muhamad THOHAR, M.D., PhD., PA

Department of Anatomy and Department of Neurosurgery, Epilepsy Treatment Program, Faculty of Medicine, Diponegoro University, Semarang, Indonesia

EDUCATION

- 1998 M.D., Faculty of Medicine, Diponegoro University, Semarang, Indonesia
- 2007 Ph.D., Graduate School of Biomedical School, Hiroshima University, Hiroshima, Japan

WORKING EXPERIENCE

- 1999-present Department of Anatomy, Department of Neurosurgery, Faculty of Medicine, Diponegoro University, Semarang, Indonesia
- 2006-2007 Clinical fellow in Neurosurgery, Hiroshima University Hospital, Hiroshima, Japan
- 2008-2010 Clinical fellow in Neurosurgery, Airlangga University, Indonesia

(Memo)



Effect of Pathology Clinic on Mental State and Adjustment in Breast Cancer Patients

Miyuki NAGASHIMA, Kiyomi TANIYAMA, Hanae MINAMI, Minoru TAKEBAYASHI

National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

In 1996, a Pathology Clinic was established at our center. The Pathology Clinic provides results regarding pathological diagnosis and patients are provided with detailed explanations from pathologists. In addition to an explanation about the disease state and treatment options by the attending physician, an explanation of the pathology results provides necessary and accurate information to patients directly, thereby promoting the patients' understanding of the disease and forming the basis for adjuvant therapy. This is expected to change the mental state, recognition and behavior towards both the disease and treatment. Therefore, in this study, to clarify any short-term effects from the Pathology Clinic, we conducted a paper-based questionnaire and interview targeting breast cancer patients who had undergone radical surgery, before and after they attended the Pathology Clinic. We wanted to know if there was increased motivation for treatment and a sense of reassurance, as well as reduction in anxiety in patients. HADS status in the group that attended the Pathology Clinic suggested that attending the Pathology Clinic may reduce anxiety in the short term. In contrast, the MAC Anxious Preoccupation score was significantly higher in the group that attended the Pathology Clinic, both before and after attendance, compared to the group that did not attend. Therefore, the group that attended may have reflected a reduction of anxiety from proactive actions, including collection of medical data on the cause of anxiety and by adoption of healthy behaviors. The results suggest that appropriate support in terms of medical information and emotion has an effect and is necessary.

Miyuki NAGASHIMA, MA

Clinical Psychologist, Department of Psychiatry, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

EDUCATION

2005 MA, Clinical Psychology at Graduate School of Hiroshima University, Higashihiroshima, Japan

WORKING EXPERIENCE

2005-present Staff Clinical Psychologist, Department of Psychiatry, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan



(Memo)



How does electroconvulsive therapy work for depression? - Involvement of astrocyte-derived synaptogenic factor, thrombospondin-1 -

Mami OKADA-TSUCHIOKA, Naoto KAJITANI, Hiromi ABE, Chiyo SHIBASAKI,
Minoru TAKEBAYASHI

Division of Psychiatry and Neuroscience, Institute for Clinical Research, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

Patients with cancer often suffer from depression, which makes it difficult to assent to and receive cancer treatment. Antidepressants and electroconvulsive therapy (ECT) are major therapeutic strategies for depression in patients with cancer. ECT is the most potent treatment; however, the underlying mechanisms of action remain largely unclear.

Synaptogenesis has recently been postulated as one of the modes of action in ECT. Thrombospondin-1 (TSP-1), a member of the TSP family, has recently been reported to be secreted by astrocytes and regulates synaptogenesis, especially in presynaptic maturation, in the developing brain. Furthermore, recent studies have discovered several astrocyte-secreted synaptogenic factors following TSP-1. In this study, we investigated the effects of electroconvulsive seizure (ECS), an animal model of ECT, on the expression of astrocyte-secreted synaptogenic factors in the adult rat hippocampus. Single and repeated (once a day for ten days) ECS induced TSP-1 mRNA after 1 h and peaked at 2 h, then returned to sham level at 24 h. Conversely, TSP-2 and -4 mRNA were unchanged. Furthermore, we found that repeated ECS induced the expression of the TSP-1 protein. ECS also induced mRNA and protein expression of glial fibrillary acidic protein (GFAP), a marker of astrocyte activation. Interestingly, chronic treatment with antidepressants did not induce the expression of TSP-1 mRNA or protein.

The results suggest that the level of TSP-1 protein is specifically increased by repeated ECS, and not by chronic treatment with antidepressants. ECS-induced TSP-1 expression appears to be regulated, at least in part, by the activation of astrocytes. Therefore, TSP-1 is suggested as a crucial molecule in the mechanism occurring in the brain indicating that ECT is more effective than antidepressants in the treatment of depression.

Mami OKADA-TSUCHIOKA, PhD

Research associate, Division of Psychiatry and Neuroscience, Institute for Clinical Research, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

EDUCATION

- 2003 B.Pharm., Hiroshima University, Hiroshima, Japan
2005 M.Pharm., Graduate School of Biomedical Science, Hiroshima University, Hiroshima, Japan
2008 Ph.D., Graduate School of Biomedical Science, Hiroshima University, Hiroshima, Japan

WORKING EXPERIENCE

- 2008-present Staff research associate, Institute for Clinical Research, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan



(Memo)



Cancer Counseling and Pathology Clinic

Takako NAKANISHI¹⁾, Kyoko KOSUGI¹⁾, Chidori TERAOKA^{1,4)}, Terumi AOSHIBA¹⁾, Kazuya KURAOKA²⁾, Kiyomi TANIYAMA^{2,3)}

¹⁾Nursing unit, ²⁾Department of Diagnostic Pathology, ³⁾Institute for Clinical Research, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, and ⁴⁾National Hospital Organization, Higashihiroshima Medical Center, Higashihiroshima, Japan

In Japan, the Cancer Control Act was passed in 2006. Consequently, our center has been proactively conducting palliative care promotions. Concerning health insurance coverage, the “Cancer Counseling Fee” became payable for health insurance remuneration as of April 2010. The cancer counseling fee covers the service provided to patients diagnosed with malignant tumors in an environment with sufficient consideration of their psychological states. Physicians with experience in cancer treatment and full-time nurses with experience with cancer patients collaborate to explain and consult with patients to allow them to select a line of treatment upon full understanding of and consent to diagnoses and treatment methods. At our center, cancer patients are offered cancer counseling in all clinical departments, and an explanation by a pathologist in a pathology clinic plays an important role in performing well-organized cancer counseling.

When explaining the diagnosis to patients in the pathology clinic, the pathologist also attends to the patients’ emotions while listening to their anxieties and empathizing with their pain. Patients that accurately understand the conditions of their illness and the treatment’s policies and effects are more likely to consent to the explanation by the attending physician and proactively accept the standard therapy by the attending physician, which increases medical compliance. The combination of the explanation by a pathologist in the pathology clinic and cancer counseling by a nurse can improve the mental disposition of these patients.

Takako NAKANISHI, RN, Certified Nurse in Palliative care

Palliative Care, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

EDUCATION

1985 RN, Bell Land Nursing Technical School, Sakai, Japan
2005 Certified Nurse in Palliative care, Japanese Nursing Association, Kiyose, Japan

WORKING EXPERIENCE

1985- 1986 Fuchu Hospital, Izumi, Japan
1986- 1988 Bell Land General Hospital, Sakai, Japan
1988- 1996 Sumitomo Hospital, Osaka, Japan
1996- 1996 Tsuzi Hospital, Osaka, Japan
1996- 2003 National Kure Hospital, Kure, Japan
2004- 2004 Hamawaki Orthopedics Clinic, Hiroshima, Japan
2004- present National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan



(Memo)



Mindfulness-based Supportive Therapy (MBST) – A novel psychotherapy to address suffering in palliative care

Seng Beng TAN, Loh Ee CHIN, Ng Chong GUAN, Anne YEE, Cathie WU, Lim Ee JANE, Christopher Boey Chiong MENG

University Malaya Medical Center, Kuala Lumpur, Malaysia

Delivering psychotherapy in the palliative care settings could be challenging. Patients may experience rapid change in physical strength, psychological distress and conscious level. Furthermore, the given psychotherapy needs to embrace basic principles of palliative care, such as whole-person, whole-family, whole-team and whole-journey care. To address these challenges, we proposed a novel psychotherapy named mindfulness-based supportive therapy (MBST) based on qualitative data on suffering in palliative care. We believe that MBST is a potentially useful psychological intervention in palliative care, specifically designed to address psycho-existential suffering of terminally ill patients.

Seng Beng TAN, MRCP (UK)

Consultant in Palliative Medicine, University Malaya Medical Center, Kuala Lumpur, Malaysia

EDUCATION

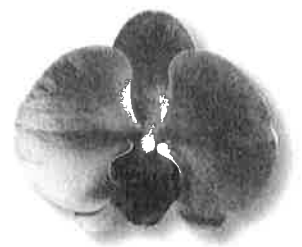
- 2000 MBBS (Malaya), University of Malaya, Malaysia
- 2006 MRCP (UK), Royal College of Physicians, United Kingdom

WORKING EXPERIENCE

- 2007-2008 Resident Physician, National Cancer Center, Singapore.
- 2008-present Palliative Medicine Physician, University Malaya Medical Center, Malaysia



(Memo)



Do HIV-infected Cancer Patients Need Palliative Radiation Therapy?

Pathomphorn SIRAPRAPASIRI¹⁾, Ekkasit THARAVICHITKUL²⁾,
Nan SUNTORNPONG³⁾, Chowkaew TOVANABUTRA⁴⁾

¹⁾Rajavithi Hospital, Bangkok, Thailand, ²⁾Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand, ³⁾Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand, ⁴⁾Chonburi Cancer Center, Chonburi, Thailand

Objective

To determine effects of radiation therapy (RT) to immunological status and disease progression among HIV-positive cancer patients.

Materials and Methods

A multicenter prospective observational study was conducted among HIV-positive cancer patients who received RT in Thailand. Blood samplings were taken for CD4% and plasma HIV-RNA viral load (HIV-VL) assays before, at the last week of RT and 6 months after completion of RT. Only CD4% was determined in the 3-month follow-up visit.

Results

From August 22, 2009 to July 31, 2012, 90 HIV-positive cancer patients were included in the study. The median age was 40 years (range 19-61). Seventy-seven patients (85.6%) were female, 64 patients (71.1%) were invasive cervical cancer. The treatment of invasive cervical cancer included external beam radiation (EBRT) 54-56 grays (Gy), intracavitary brachytherapy and concurrent chemoradiation. Seventy-six patients (84.4%) were on antiretroviral treatment (ART) before RT. The mean CD4% at baseline, post-RT, three and six months follow-up were 18.46%, 19.70%, 16.79%, and 17.16%, respectively. Three cervical cancer patients had increased HIV-VL. Three cervical cancer patients who were not on ART had HIV-VL increased more than 10 times ($1 \cdot \log_{10}$).

Conclusions

Radiation therapy has minimal effect on the immunological status in HIV-positive cancer patients. All HIV-positive cancer patients need early diagnosis, holistic care together with the initiation of ART and curative radiation therapy.

Key words

Cancer, Radiation therapy, HIV, AIDS, antiretroviral

Pathomphorn SIRAPRASIRI, M.D.

Radiation Oncologist, Division of Therapeutic Radiology and Oncology, Rajavithi Hospital, Bangkok, Thailand

EDUCATION

1999 M.D., Srinakarinwirot University, Bangkok, Thailand
2003 Thaiboard in Radiation Oncology, Chiang Mai University, Chiang Mai, Thailand

WORKING EXPERIENCE

2003-2004 Staff Radiation Oncologist, Lampang Cancer Center, Thailand
2004-present Staff Radiation Oncologist, Rajavithi hospital, Bangkok, Thailand



(Memo)



P-1

Handling of child abuse cases by medical institutions in Japan – trend analysis of past years regarding the number of consultations with the child consultation center

Eri ISHIKAWA^{1,2)}, Megumi BABA^{1,3)}, Shoichi MAEDA^{1,4)}

¹⁾Medical Ethics & Patient Safety Laboratory, Keio Research Institute at SFC, Fujisawa, Japan, ²⁾Faculty of Nursing and Medical Care, Keio University, Fujisawa, Japan, ³⁾Department of Pediatric Palliative Care, Children's Hospital for Wales, UK, ⁴⁾Graduate School of Health Management, Keio University, Fujisawa, Japan

Background: In Japan, an increasing number of child abuse cases have been reported in recent years. The role played by the medical institution, including as liaison with the child consultation department of social services, is significant. This study looks at the number of consultations made by medical institutions to the child consultation center over the years as a baseline in our consideration of future handling of child abuse cases at the organisational level.

Methods: Data published by the Ministry of Health, Labour and Welfare over the past seven years was analysed. SPSS Version 22.0 was used for the statistical analysis.

Results: There has been an increase in the number of consultations by each individual medical institution (slope 184.11, $R^2=0.91$, $P < 0.05$) the police (slope 2036.46, $R^2=0.94$, $P < 0.001$) and the general public (slope 1605.32, $R^2=0.90$, $P < 0.05$). However, there were no changes in the number of consultations by the designated medical institutions, welfare offices, health centers, nurseries and schools or by the perpetrators themselves. The total increase in the number of consultations made to the child consultation center is considered to be due to increased consultations by certain organisational groups.

Conclusions: Medical institutions' awareness of child protection issues seems to be rising. These institutions play an important role in early recognition of child abuse and prevention of further harm to the children thru referral to the child consultation center and reporting to the police. Sensitive handling of suspected cases are required as parental rights may be harmed as a result of a false accusation. It is therefore important that the cases are handled at an organisational level with clear policies and standards, rather than at a personal level.

P-2

Handling of child abuse cases by medical institutions in Japan (2): analysis of consultation numbers by types of abuse

Eri ISHIKAWA^{1,2)}, Megumi BABA^{1,3)}, Shoichi MAEDA^{1,4)}

¹⁾Medical Ethics & Patient Safety Laboratory, Keio Research Institute at SFC, Fujisawa, Japan, ²⁾Faculty of Nursing and Medical Care, Keio University, Fujisawa, Japan, ³⁾Department of Pediatric Palliative Care, Children's Hospital for Wales, UK, ⁴⁾Graduate School of Health Management, Keio University, Fujisawa, Japan

Background: In Japan, child abuse are being frequently reported. Our recent study has revealed that the number of consultations made to the child consultation center by medical institutions, police and the local residents is increasing. This study looked at the number of cases consulted by these three groups in terms of types of abuse. We then aimed to identify characteristics of the cases reported by the medical institutions as we consider how they should be handled at an organisational level.

Methods: Data published by the Ministry of Health, Labour and Welfare over the past seven years was analysed. SPSS Version 22.0 was used for the statistical analysis.

Results: All three groups had a statistically significant increase in consultations for physical abuse, psychological abuse and neglect. None of the three had significant changes in the number of consultations for sexual abuse. Medical institutions had a particularly significant increase in the number of consultations for psychological abuse (slope 27.75, $R^2=0.84$, $P < 0.05$), and neglect (slope 77.82, $R^2=0.86$, $P < 0.05$).

Conclusions: The study shows that the awareness for not only physical, but also psychological abuse and neglect is increasing. Early recognition and intervention is important for all types of abuse. However, suspicions about psychological abuse and neglect are more difficult to judge objectively. Therefore, it is important that medical institutions handling these cases make appropriate determinations in order to avoid violation of the rights of the parents and harming of the child-parent relationship.

P-3

Determination of place of care for the terminally ill: Japanese medical social worker (MSW) attitudes and practices

Etsuko KAMISHIRAKI^{1,6)}, Megumi BABA^{2,6)}, Mikihiro SHIMA³⁾, Shoichi MAEDA^{4,6)}, Yuka KAWAE⁵⁾

¹⁾Faculty of Social Welfare, Yamaguchi Prefectural University, Yamaguchi, Japan, ²⁾Department of Pediatric Palliative Care, Children's Hospital for Wales, Cardiff and Vale University Health Board, UK, ³⁾Shibata & Nakagawa Law Firm, ⁴⁾Graduate School of Health Management, Keio University, Fujisawa, Japan, ⁵⁾You·Home clinic, ⁶⁾Medical Ethics & Patient Safety Laboratory, Keio Research Institute at SFC, Fujisawa, Japan

Background: Medical social workers (MSW) are challenged when conflict arises between a client with terminal cancer and their families and physicians in deciding upon the place of care. This study aimed to explore the attitude of MSWs toward placement decision-making for terminally-ill patients in Japan.

Subjects: All MSW who are registered with the A-prefecture Medical Social Workers Association in Japan (n=125).

Methods: Anonymous postal survey with hypothetical cases. Data was collected in 2012.

Results: 43.2% responded. When a patient had the capacity, most respondents based their decision on the patient's wishes (88.9% in general, 83.3% in adult-specific, 91.5% in pediatric-specific cases). When a patient lacked capacity, but had previously expressed wishes, about a half (60.4%, 56.5%, 54.2% in the respective cases) respected these wishes. Without advance directives, most (94.3%, 93.5% and 89.6%, respectively) made decisions based on the proxy's wishes. MSW made decisions according to the principles of informed consent with patients with capacity, but not always for those without. Further education in the ethics of placement decisions for the terminally ill is required.

P-4

End of life care placement decisions: UK medical social worker (MSW) attitudes and practices – a pilot study

Etsuko KAMISHIRAKI^{1,4)}, Megumi BABA^{2,4)}, Shoichi MAEDA^{3,4)}

¹⁾Faculty of Social Welfare, Yamaguchi Prefectural University, Yamaguchi, Japan, ²⁾Department of Pediatric Palliative Care, Children's Hospital for Wales, Cardiff and Vale University Health Board, UK, ³⁾Graduate School of Health Management, Keio University, Fujisawa, Japan ⁴⁾Medical Ethics & Patient Safety Laboratory, Keio Research Institute at SFC, Fujisawa, Japan

Background: Decisions on placement of patients with terminal cancer can be complex and may result in conflicting ideas between the patient, their family and the physician as to the most appropriate place. Further complications arise when the patient lacks capacity and there has been no prior expression of the preference by the patient. As a first step in our investigation into the views and practices among Japanese and UK MSWs, who are involved with the decisions on placement of the terminally-ill patients, we report on our pilot survey with four MSWs from Marie Curie Hospices in the UK. We plan to report results at a later date on the national survey in Japan and UK.

Methods: Anonymous self-administered questionnaire survey during the month of November 2013.

Participants: MSWs who work for Marie Curie Hospices in UK (There are total of nine Marie Curie Hospices in the UK, each may have a several MSWs).

Results: Four MSWs participated. The study showed that the MSWs prioritized the wishes of the patient in deciding upon the place of care either as a decision made by a person with capacity or as an advance expression of the preference before they lost capacity regardless of the age of the patient. Otherwise the family's wishes were respected, so long as it was considered to be in the best interest of the patient. Further research to compare UK and Japanese MSWs may highlight cultural differences and scope for education and development in this area of social work.

These research findings have been presented in the Yamaguchi Prefectural University Journal.

P-5

Integral treatment of central airway stenosis due to poorly differentiated carcinoma in mediastinum with a Dumon stent and chemoradiotherapy

Masaomi MARUKAWA, Yuka BEIKA, Masayuki YASUGI and Kenichi GEMBA

Department of Respiratory Medicine, National Hospital Organization Fukuyama Medical Center, Fukuyama, Japan

Background: Malignant tumors are sometimes complicated by oncological emergencies, even at the onset of the disease. Progressive tracheal stenosis is one of the most complex situations encountered when treating patients with advanced malignant diseases in the thorax. A case of severe tracheal stenosis caused by poorly differentiated carcinoma in the retrotracheal mediastinum is described.

Case report: A 52-year-old man was referred to our hospital due to progressive dyspnea and an abnormal mediastinal shadow on his chest radiograph. Chest computed tomography (CT) revealed a giant tumor in the upper, retrotracheal, mediastinal position compressing the trachea. A Dumon stent (straight type) was first inserted to the stenotic portion of the trachea to prevent airway obstruction and palliate his symptoms of distress. No diagnostic clue was obtained by percutaneous needle biopsy, which was done on the day after stenting; therefore, video-assisted thoracic surgery (VATS) was performed as the second diagnostic procedure. Specimens obtained through the VATS procedure revealed a poorly differentiated carcinoma. Based on the location of the tumor, histological findings, and other whole-body examinations, the tumor was finally diagnosed as a primary unknown, poorly differentiated carcinoma in the retrotracheal mediastinal position. Because the giant tumor was localized to the mediastinum alone, the patient underwent concurrent chemoradiotherapy comprising cisplatin and docetaxel. After the tumor-specific therapy, the tumor regressed prominently on chest CT, and his distress disappeared. Furthermore, the stent was able to be removed due to migration to the lower portion of the trachea four months after therapy.

Conclusion: A case of severe tracheal stenosis caused by poorly differentiated carcinoma in the mediastinum was reported. Temporary stenting using a Dumon stent is very useful in the treatment of malignant airway stenosis when tumor-specific therapy can be expected to have an effect.

P-6

A case of liver metastases of gastric cancer in which S-1 plus CDDP therapy was effective and histologically complete response was obtained

Takashi NONOSHITA, Shinya OTUKA, Masaru INAGAKI, Kenta ISODA, Kouji KITADA, Ryosuke HAMANO, Naoyuki TOKUNAGA, Hideaki MIYASOU, Kenji TAKAHASHI, Yosuke TUNEMITU, Kazuya MIYOSHI, Kazuhide IWAKAWA, Hiromi IWAGAKI

Department of Surgery, National Hospital Organization Fukuyama Medical Center, Fukuyama, Japan

Chemotherapy is being used for liver metastasis of gastric cancer, but reported response rates are not high. We describe herein with reference to the literature our experience with a case of metachronous liver metastases that developed after surgery for advanced gastric cancer in which histologically complete response (CR) was obtained following partial hepatectomy and S-1 plus CDDP combination therapy. The patient was a woman in her late 50s who had undergone total gastrectomy, Roux-en-Y reconstruction, and D2 dissection for a type 2 lesion in the posterior wall of the upper gastric body in March 20XX. The final clinical histopathological diagnosis was U, post, type 2, 30×45 mm, pT4a, sci, INFc, ly1 v0, pN1(2/61), M0, H0, P0, fStage IIIA. After discharge, the patient was followed-up with oral administration of S-1 as postoperative adjuvant chemotherapy. In September 20XX, six months postoperatively, multiple nodular shadows with a maximum diameter of 10 mm were found in the S7 and S8 segments of the liver on abdominal contrast-enhanced computed tomography (CT) and contrast-enhanced magnetic resonance imaging (MRI), and liver metastases of gastric cancer were diagnosed. Because multiple metastases were present, chemotherapy was given first, as three courses of S-1 plus CDDP combination therapy. In March

20XX+1, following initiation of chemotherapy, partial hepatectomy was performed (Hr-0 (S8, S7/S8)). Regarding histopathological findings, although fat deposition and hemorrhagic foci were seen in the resected specimens, no malignant findings were observed, the tumors disappeared and histologically CR was considered to have been achieved. As of eight months postoperatively, no recurrence has been observed.

P-7

A case report of malignant pleural mesothelioma with characteristic findings in pleural effusion

Satoshi FUKUDA¹⁾, Yumiko FUKUDA¹⁾, Hitoshi NAGARE¹⁾, Yutaka KAJIKAWA¹⁾, Hiroyuki YANAI²⁾, Hiroshi SONOBE³⁾, Naomi HIRAMOTO⁴⁾

¹⁾Department of Clinical Laboratory, National Hospital Organization Fukuyama Medical Center, Fukuyama, Japan, ²⁾Okayama University Hospital, Okayama, Japan, ³⁾Chugoku Central Hospital of the Mutual Aid Association of Public School Teachers, Fukuyama, Japan, ⁴⁾Department of Clinical Laboratory, National Hospital Organization Okayama Medical Center, Okayama, Japan

Background: Malignant pleural mesothelioma (MPM) is an extremely aggressive tumor arising from pleural mesothelium. Exposure to asbestos is well known as the most influential risk factor and cases of death are increasing in Japan. Early detection is critical for the development of more effective therapies. MPM is difficult to differentiate from reactive mesothelial hyperplasia (RMH) on cytological examination. We report herein a case of MPM found through an annual medical check-up, referring to cytological and immunohistochemical findings in pleural effusion.

Case report: The patient was a 65-year-old man, working as an electric engineer in a shipyard. He had a history of asbestos exposure and smoking (45 pack-years). An annual medical checkup revealed pleural plaque and right pleural effusion. Chest computed tomography showed no pleural thickening or lung tumor. Thoracentesis was performed to diagnose asbestos-related diseases including benign asbestos pleurisy (BAP). Hyaluronic acid (HA) level in pleural effusion exceeded 200,000 ng/ml. Variably sized spherical clusters of cells with collagen ball (CB) were found. Immunohistochemical stains of cells revealed positive results for calretinin, D2-40, WT-1, and EMA, and negative results for carcinoembryonic antigen and desmin. Using medical thoracoscopy, pleural biopsy was performed. With clinical, radiological, and pathological findings, preoperative diagnosis was malignant mesothelioma, epithelioid type, clinical stage I. The patient underwent extrapleural pneumonectomy and postoperative staging was T2,N0,M0. Recurrence occurred in the right kidney and chest wall 2 years later. Although combined treatment with chemotherapy and radiotherapy was added, the patient died 3 years after diagnosis.

Discussion and conclusion: Clinical aspects of this case resembled those of BAP, but the extremely high levels of HA in pleural effusion indicated the possibility of MPM. The many cell clusters with CB, which is rarely seen in RMH, showed strong metachromasia. Immunohistochemical staining using desmin, EMA, and calretinin were useful for differentiating MPM from RPH.

P-8

Evaluation of renal function after laparoscopic partial nephrectomy with renal scintigraphy using 99m technetium - mercaptoacetyltriglycine ((99m) Tc-MAG3)

Syuntaro KOHDA, Miki NAITOH, Tsutomu SHIMAMOTO, Masanobu SHIGETA

Department of Urology, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

Aim: We evaluated renal function after laparoscopic partial nephrectomy (LPN) using renal scintigraphy with 99m technetium-mercaptoacetyltriglycine ((99m) Tc-MAG3).

Subjects and Methods: We assessed 62 patients with split renal function who underwent LPN for renal tumors during June 2010 to June 2013, using renal scintigraphy with (99m) Tc-MAG3 before surgery and 6 months post-surgery. Changes in total glomerular filtration rate (GFR), GFR of the affected kidney, and GFR of the unaffected kidney and surgery-related factors were assessed. The median age was 63 years old.

Results: The mean operating time was 145 min, mean ischemic time was 27.4 minutes, mean tumor diameter was 2.27 cm, and mean blood loss was 75 ml. R.E.N.A.L scores were as follows: low (4-6), 35 patients; moderate (7-9), 21 patients; and high (10-12), 6 patients. In cases where the tumor size more than 20 mm, the affected renal function and total renal function after surgery was significantly reduced. Cases that were ischemic for more than 30 minutes, and in cases with substantial blood loss, the affected renal function was significantly reduced. In 49 cases of 62 cases (79%), the total decline in renal function after surgery was within 20%.

Conclusion: Laparoscopic partial nephrectomy was considered useful in terms of future renal function preservation

P-9

Clinical Significance of Metastasectomy in Sarcoma Patients with Lung Metastases

Toshihiro MATSUO¹⁾, Takashi SUGITA¹⁾, Norikazu HAMADA¹⁾, Hiroki HACHISUKA¹⁾, Takahiko HAMASAKI¹⁾, Yasunori IZUTA¹⁾, Ryo MORI¹⁾, Shingo OKAWA¹⁾, Takahiro HARADA¹⁾, Yoshinori YAMASHITA²⁾, Masaki KUWAHARA²⁾, Hiroaki HARADA²⁾

¹⁾Department of Orthopaedic Surgery, ²⁾Department of Respiratory Surgery, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

Background: Sarcoma often metastasizes to the lung. Recently, pulmonary metastasectomy has become a widely-accepted treatment approach. The aims of our study were to evaluate the efficacy of lung metastasectomy and to analyze prognostic factors for overall survival that may help select patients for pulmonary metastasectomy and inform on prognosis in sarcoma patients with lung metastases.

Patients and Methods: We identified 91 sarcoma patients with lung metastases who underwent primary tumor resection between 1990 and 2013 at Kure Medical Center and Hiroshima University Hospital. Among the patients with lung metastases, a total of 38 patients underwent consecutive pulmonary metastasectomies. Predictors included pulmonary distribution, number/size of lesions, repeat resection, invasion to pleura, and patient characteristics.

Results: The 3- and 5-year survival rates after metastasectomies were 68.7% and 59.4%, respectively, whereas those without metastasectomies were 18.8% and 8.1%, respectively. Patients who underwent metastasectomies had significantly better survival rates than those without metastasectomies ($p < 0.0001$). With univariate analysis, M1 cases ($p = 0.005$), both-side metastases ($p = 0.013$), more than five in number of metastases ($p = 0.0007$), invasion to pleura ($p = 0.013$), and less than 50 years old ($p = 0.033$) were significant as poor prognostic risk factors. The patient's gender, location, size of lesions and repeat resection did not influence survival. Among the variables tested, M1 case (95 % confidence interval 1.30 to 44.35, $p = 0.024$) and invasion to pleura (95 % confidence interval 1.01 to 13.65, $p = 0.048$) emerged as prognostic factors for death in patients who underwent metastasectomies.

Conclusions: Pulmonary metastasectomy may be associated with improved survival in patients with sarcoma. We conclude that sarcoma patients with lung metastases should always be considered for metastasectomy if complete resection is achieved.

P-10

A case of food-induced ileus improved by aspiration with over tube of balloon endoscopy: A case report; 2nd report

Takahiro AMANO¹⁾, Yuichi HIYAMA¹⁾, Toshio KUWAI¹⁾, Hiroshi KOHNO¹⁾, Takashi SUGITA⁴⁾, Wataru KAMIIE⁵⁾, Kiyomi TANIYAMA^{2,3,6)},

Departments of ¹⁾Gastroenterology, ²⁾Diagnostic Pathology, ³⁾Institute for Clinical Research, ⁴⁾Vice-President, ⁵⁾Honorary President, and ⁶⁾President, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan.

Introduction: The authors experienced a very rare case of food-induced ileus that we managed to treat conservatively by aspirating the food residue with the over tube of a balloon endoscopy.

Case: A Japanese woman in her 80s was admitted to our hospital neurology scrutiny for treatment of peripheral neurology. She also complained of constipation and loss of appetite experienced for more than one week before admission. Furthermore, her left abdomen had fullness gradually and tenderness was also found at the same site. She was referred to gastroenterology. She had also undergone a total gastrectomy for gastric cancer and reconstruction by Roux-en Y anastomosis and jejunum pouch 17 years ago. Jejunal pouch lumen followed a pelvic cavity filled to expand markedly with food residue and was pressed in the intestinal tract of the small intestine by contrast computed tomography (CT) of the abdomen.

Gastrointestinal endoscopy revealed that the food residue flowed back up into the esophagus, and the jejunum pouch was filled with food residue. We could not improve with stomach tube or endoscopy. Considering surgery, because she was elderly, we attempted to aspirate the food residue with the over

tube of a balloon endoscopy. We opened the side hole at the distal end of the over tube and indwelled it in the jejunum pouch. After withdrawing the endoscope, we connected the over tube to the aspiration tube and aspirated the food residue under fluoroscopic guidance. We did this two times and aspirates almost all of the food residue. After that, her symptoms improved rapidly with drug adjustment and nutrition, and she was discharged.

Conclusion: Food-induced ileus is a rare disease with less than 1% of all ileus and almost all cases require surgery. However, this is a case that was improved with conservative treatment using existing equipment. Thus, it is necessary to consider the background and status of the patient for choice of treatment.

P-11

Diffuse pancreatic enlargement caused by metastasis from gastric carcinoma: A case report; 2nd report

Takumi MATSUMOTO¹⁾, Shunsuke TAKAHASHI¹⁾, Hiroshi KOHNO²⁾, Takashi SUGITA⁵⁾, Wataru KAMIKE⁶⁾, Kiyomi TANIYAMA^{3,4,7)}

Departments of ¹⁾Nephrology, ²⁾Gastroenterology, ³⁾Diagnostic Pathology, ⁴⁾Institute for Clinical Research, ⁵⁾Vice-President, ⁶⁾Honorary President, and ⁷⁾President, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

Background: The pancreas is known for an uncommon state of gastric cancer metastasis. Additionally, diffuse metastasis is rare in metastatic pancreatic tumor. In the present case, we were presented an opportunity to diagnose a diffuse pancreatic metastasis from gastric cancer.

Case: A Japanese woman in her 60s complained of malaise, and jaundice was seen in the clinic. Her abdominal echo showed an enlarged gallbladder, dilated common bile duct, and peritoneal fluid. Computed Tomography (CT) showed diffuse pancreatic enlargement, celiac, and cervical lymph node. She was admitted to our hospital, suspicious diagnosis was malignant lymphoma. The laboratory data showed elevated pancreatic, hepatic, and biliary enzyme. Tumor markers CA19-9 and CA125 were also elevated. Magnetic resonance cholangiopancreatography (MRCP) showed no dilation of the pancreatic duct; the pancreas had high signals uniformly by DWI. Type II tumor, size of 30 mm, was seen by upper gastrointestinal endoscopy in the stomach and poorly differentiated adenocarcinoma was obtained by biopsy. Endoscopic Ultrasound-Guided Fine-Needle Aspiration (EUS-FNA) cytology for the pancreatic tumor and cervical lymph node biopsy were also undertaken. Histopathological findings showed the same pattern, adenocarcinoma. The tumor cells were immunoreactive for CK7 and partially for CK20. From these findings, the pancreatic and cervical tumor was suspected to be metastasis of the gastric cancer.

Percutaneous Transhepatic Biliary Drainage (PTCD) was undertaken for the obstructive jaundice, and chemotherapy was started. The tumor size decreased temporary; she died of peritoneal and brain metastasis 1 year after beginning chemotherapy.

Conclusion: Lymph node, liver, and peritoneal are common site of metastasis of gastric cancer. The pancreas is known as an uncommon state of gastric cancer metastasis. In the present case, the pancreas was diffusely enlarged by metastasis, which is also uncommon.

P-12

Effect of dexamethasone on the vascular pain caused by Fosaprepitant Meglumine and Epirubicin hydrochloride administration; 2nd report

Keita KAMEDA¹⁾, Takayoshi KIBA^{2,3)}, Yoshikazu OGAWA¹⁾, Shizue KIMOTO¹⁾, Sayoko KAJIUME⁴⁾, Yuko OKADA⁴⁾, Nao MORII⁵⁾, Hirotoshi TAKAHASHI⁵⁾, Yasunori ICHIBA¹⁾, Hiroyasu YAMASHIRO⁵⁾, Takashi SUGITA⁶⁾, Wataru KAMIIKE⁷⁾, Kiyomi TANIYAMA^{3,8)}

¹⁾Department of Pharmacy, ²⁾Division of Modern Medical Technology, ³⁾Institute for Clinical Research, ⁴⁾National Department of Nursing, ⁵⁾Department of Breast Surgery, ⁶⁾Vice-President, ⁷⁾Honorary President, and ⁸⁾President, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

Epirubicin hydrochloride injection is indicated as a therapy for patients with primary breast cancer. This drug has been reclassified as highly emetic by the Guidelines for Antiemetics in Oncology. Therefore, patients who receive this agent should also receive fosaprepitant meglumine; an anti emetic agent. However, it has been reported that fosaprepitant induces vascular pain when used in anthracycline-based regimens administered through peripheral lines. In order to relieve the fosaprepitant and epirubicin-induced vascular pain associated with vasculitis, dexamethasone was administered at the onset of the vascular pain. There is a possibility that the fosaprepitant and epirubicin-induced pain may be improved by dexamethasone administration, however, further trials are required to confirm the value of this method.

P-13

Proper use of blood products to reduce improper discarding; 2nd report

Misato WATANABE¹⁾, Hideki NAKANO¹⁾, Takashi ONOE^{1,2)}, Takashi SUGITA³⁾, Wataru KAMIIKE⁴⁾, Kiyomi TANIYAMA^{1,2,5)}

¹⁾Department of Clinical Laboratory, ²⁾Institute for Clinical Research, ³⁾Vice-President, ⁴⁾Honorary President, and ⁵⁾President, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

Introduction: It is very important to reduce improper discarding of blood products from the points, not only of respect of the donor's goodwill, but also of the efficient use of resources. Here, we present our attempt to discard blood products.

Discarding blood products: Discarding rates in 2012 and 2013 were accounted for 1.14% and 0.41% of Red Cells Concentrates (RCC), 2.38% and 2.42% of Fresh Frozen Plasma (FFP), and 0.11% and 0.09% of Platelet Concentrates (PC). The most frequent reason for discarding was the expiration of the time limit for RCC and FFP. The second most frequent reason was the inadequacy of keeping for RCC and disuse after melting of FFP.

Attempt to reduce: Five attempts were undertaken as follows: 1) proper keeping of inventory number, 2) proper confirmation of the use, 3) limiting delivery number, 4) forbidding keeping in wards, and 5) teaching program for the proper use.

Conclusion: In the reasons for discarding RCC, rate of expiration of the time limit was reduced to 25% in 2013 from 67.5% in 2012 associated with the proper keeping of inventory number and proper confirmation of the use. At the conference for the teaching program, we learned of the clinicians' demand, which was useful in reducing improper discarding. Thereafter, we shall follow the rate of discarding to reduce improper discarding and perform safe blood transfusions.

P-14

International Activities of Kure Medical Center and Chugoku Cancer Center; 2nd report

Naoko KISHIDA¹⁾, Maki USHIROSAKO²⁾, Takashi ONOE¹⁾, Minoru TAKEBAYASHI¹⁾, Morihiro MATSUDA¹⁾, Takayoshi KIBA¹⁾, Yoshinori YAMASHITA¹⁾, Masahiro TANEMURA¹⁾, Kiyomi TANIYAMA¹⁾

¹⁾Institute for Clinical Research, and ²⁾Health Information Management Room, National Hospital Organization Kure Medical Center and Chugoku Cancer Center (KMC/CCC), Kure, Japan

Our Office of International Relations supports the international activity of our hospital. We manage various activities, such as the Kure International Medical Forum (K-INT), Japan-Korea Joint Meeting for Diagnostic Cytopathology (JK meeting), Memorandum of Understanding (MoU), Short-term Externship for Overseas, and the Study Abroad Program for Student Nurses. These events promote education for health care professionals with an international perspective and world-class researchers.

K-INT: K-INT was established in 2008 to sponsor an annual international medical forum, particularly those in Asian countries. It promotes international activities aiming to enhance the availability of educational opportunities to young medical professionals. The 7th K-INT will be held July 11-13, 2014, at KMC/CCC.

JK meeting: Our Institute also serves as the headquarters for the annual JK meeting. The 13th annual meeting will be held November 1, 2014, in Korea.

MoU: The MoU is a voluntary agreement for the purpose of providing educational activities. Since the establishment of MoU with Rajavithi Hospital in 2009 and the Queen Sirikit National Institute of Child Health in 2010, we have created a cooperative relationship with various partners overseas. We are always willing to establish new MoU with other international institutes.

Short-term Externship for Overseas: We accept several overseas medical professionals in a short-term externship program.

Study Abroad Program for Student Nurses: In this program, a scholarship is offered to selected student nurses of our affiliated nursing school.

P-15

A bib-assisted oxygen inhalation is effective for babies with acute respiratory disease

Mai FUJIWARA¹⁾, Yoshiko FUJIMOTO¹⁾, Nao OHAMA¹⁾, Shizuka TSUMAHIRO¹⁾, Shiori IMOTO¹⁾, Fumika KANDA¹⁾, Rie MUKAI¹⁾, Sanae MORISHITA¹⁾, Terumi AOSHIBA²⁾, Wataru KAMIIE³⁾, Kiyomi TANIYAMA⁴⁾

¹⁾4B ward, ²⁾Vice-President, ³⁾Honorary President, and ⁴⁾President, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

Introduction: Oxygen inhalation is adapted for babies with acute respiratory disease but the efficacy is not always reliable. The baby's oxygen inhalation system uses a mask placed in front of baby's mouth and nose. This system is always fixed and has no ability to follow the movement of baby and so the baby fails to inhale oxygen after for example, turning over in its sleep. In the previous study, we found that a bib-assisted oxygen inhalation was effective and followed the baby's movements although improvement of mask and bib themselves was required because the small mask sometimes became blocked by the baby's chin. In the present study, we used a large adult-use mask, changed the shape and used two different sizes of bib. The efficacy of oxygen inhalation of this novel system was compared with that of the ordinary system.

Methods: A randomized trial was performed, between March and December 2013, for 12 babies who had acute respiratory disease and needed oxygen inhalation therapy. Their SpO₂ and fitting of the mask were assessed for two days.

Results: Novel system improved the efficacy of oxygen inhalation. The large mask was more fitted to the baby's mouth and overcomes the problems of the ordinary system. The SpO₂ of babies tended to be higher with the novel system than the ordinary system. There was no difference in respiration and sleeping between both systems. The novel system still needs improvements for optimal fitting.

Conclusion: During sleep, baby needs effective oxygen inhalation and problems can occur with movement and turning. The present study evaluated a novel inhalation system while the baby slept. We found the novel system was more adaptable and effective for the baby than the ordinary one. Adjustment of the system will be necessary with the growth of the baby.

P-16

Auto-Analysis of Immunohistochemical Findings and One-day Instant Quality Fluorescence in Situ Hybridization Increase Quality of Breast Cancer Therapy; 2nd report

Daiki TANIYAMA¹⁾, Junichi SAKANE^{1,2)}, Miho TANAKA¹⁾, Naoko YASUMURA¹⁾, Hiroyasu YAMASHIRO³⁾, Akihisa SAITO^{1,2)}, Kazuya KURAOKA¹⁾, Kiyomi TANIYAMA^{1,2)}

¹⁾Department of Diagnostic Pathology, ²⁾Institute for Clinical Research, ³⁾Department of Breast Surgery, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

Background: Currently, the therapeutic strategy for a breast cancer patient is designed according to his/her histopathological, immunohistochemical and molecular findings. These findings are obtained through the collected efforts of many individual pathologists or medical technologists and are thus limited by intra-observer error and potentially subjective decision-making. In our institute, the authors are utilizing the whole slide imaging system and a software for image analysis, specifically for an auto-analysis of IHC. On the other hand, current FISH technique is time-consuming and takes two days to complete due to the overnight incubation required to obtain proper hybridization result. The authors tried to compare the results with current FISH and one-day Instant Quality FISH for HER2.

Methods: Auto-analysis arm. Twenty-five breast cancer specimens were examined for IHC of ER, PgR, HER2, TopoII alpha, and Ki-67, and the results were compared by ocular observation and auto-analysis. Fifty-one cancer specimens were compared in terms of IHC and cFISH of HER2. IQFISH arm. Thirty-four biopsy samples from pre-therapeutic breast cancers (29 primary invasive ductal carcinomas and five metastatic cancers) were examined and the results of cFISH and IQFISH were compared.

Results: Auto-analysis arm. For all antibodies, except for HER2, concordant results were obtained in 100% of 24 ER positive cases. Ki-67 index ($r=0.96$) and TopoIIalpha index ($r=0.95$) also showed a significant correlation ($p<0.001$). For cHER2, all four specimens with Hercep-score 2 by ocular observation but 1 by auto-analysis revealed no HER2 gene amplification. IQFISH arm. IQFISH ($r=0.66$) showed a significant correlation ($p<0.0001$) with cFISH. Both auto-analysis and IQFISH reduced substantially the time for analysis.

Conclusion: Well-organized auto-analysis is more likely to result in an objective observation and provide a means by which to standardize the methods of IHC in breast cancer. IQFISH may contribute to an earlier decision regarding therapeutic strategy for a breast cancer.

P-17

Aberrant DNA methylation of *DLX4* and *SIM1* is a predictive marker for disease progression of uterine cervical low-grade squamous intraepithelial lesion; 2nd report

Junichi SAKANE^{1,2,3}, Kiyomi TANIYAMA^{1,2}, Kazuaki MIYAMOTO^{1,4}, Kazuya KURAOKA^{1,2}, Kazuhiro SENTANI³, Naohide OUE³, Wataru YASUI³

¹Institute for Clinical Research, ²Department of Diagnostic Pathology, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan, ³Department of Molecular Pathology, Hiroshima University Institute of Biomedical and Health Sciences, Hiroshima, Japan, ⁴Department of Surgery, National Hospital Organization Higashi-Hiroshima Medical Center, Higashi-Hiroshima, Japan

Background: A few uterine cervical low-grade squamous intraepithelial lesions (LSILs) are known to progress with high-risk human papillomavirus (hrHPV).

Methods: 113 patients were classified into four groups according to their cervical cytology, hrHPV infection, and follow up. Cytology samples were examined for aberrant DNA methylation of *DLX4* and *SIM1* genes.

Results: Group 1 was negative for intraepithelial lesions or malignancies. LSIL in Group 2 showed a continuance of LSIL for longer than 365 days, and LSIL in Group 3 showed an up-grading to high-grade (H) SIL or higher (HSIL+) within 365 days of LSIL diagnosis. Group 4 was squamous cell carcinoma. Significant differences existed in the frequency of DNA methylation between Groups 2 and 3 ($p = 0.044$), between Groups 3 and 4 ($p = 0.020$) for *DLX4*, and between Groups 1 and 3 ($p = 0.0003$), and Groups 2 and 3 ($p = 0.005$) for the *SIMI* gene. LSIL cases with DNA methylation of the *SIMI* gene, or both genes, progressed faster to HSIL+ than did the others ($p = 0.033$ and $p = 0.048$, respectively).

Conclusion: Aberrant DNA methylation of the *DLX4* and *SIMI* genes is a novel progression marker for uterine cervical LSIL with hrHPV infection.

P-18

Chondroblastoma arising from the carpal and metacarpal bones: A case report

Putu Budi SUCITRA¹⁾, Gede Eka WIRATNAYA²⁾

¹⁾Orthopedic & Traumatology Resident of Udayana University, Sanglah General Hospital, Denpasar, Bali, Indonesia, ²⁾Oncology Consultant, Orthopedic & Traumatology of Udayana University, Sanglah General Hospital, Denpasar, Bali, Indonesia

Introduction: Chondroblastoma was first described by Jaffe and Lichtenstein in 1942 as a subtype of giant cell tumor that associated with chondrogenesis. Chondroblastoma more frequently occurs in patients of 10-20 years old. Chondroblastoma is a benign lesion, but can occur or spread in extraosseous site, and cases of pulmonary metastasis have been reported. A common location of chondroblastoma is the end of the long bone, but lesions of metacarpal and carpal bones are extremely rare.

Case: A female, 26 years old, right handed, complained a bulge aroused on her left wrist since 5 years ago, the bulge was gradually developed until it disturbed the movement of her wrist. The lump was also accompanied by intermittent pain. On physical examination, a hard bony bulge was identified over the area dorsal side of the wrist sized around 6×5 cm, and fixed. Extension and flexion of the wrist was limited and painful. On radiography demonstrated multiple osteolytic lesion on all carpal bones and the base of the third metacarpal, on three dimensional CT showed solid mass that destructs base of second to fifth metacarpals, trapezoid, capitatum, and the scaphoid Open biopsy was done and the histologically chondroblastoma appearance with some giant cells was noted. She then underwent curettage, adjuvant high speed burr and bone cement and more biopsy material was taken. Postoperative the range of motion of the wrist was increased and pain was reduced.

Discussion: Chondroblastoma is a benign lesion, but can occur or spread in extraosseous sites. Common location of chondroblastoma is the end of the long bones, but lesions of metacarpal and carpal bones are extremely rare. We encountered a rare case of chondroblastoma of the metacarpal and carpal bones, we already did curettage and bone graft to this patient and the result was good.

Keywords: Chondroblastoma, carpal bones, metacarpal bones, curettage, bone graft.

P-19

Functional outcome Synovial Chondromatosis of the right knee after two steps anterior and posterior synovectomy: A case report

Made ARTANA¹⁾, Gede Eka WIRATNAYA²⁾

¹⁾Orthopaedic and Traumatology Resident, Medical Faculty Udayana University, Sanglah General Hospital, Denpasar, Bali, Indonesia, ²⁾Orthopaedic and Traumatology Consultant, Medical Faculty Udayana University, Sanglah General Hospital, Denpasar Bali, Indonesia

Synovial Chondromatosis was a condition of metaplastic and focal formation of cartilage in the intima layer of synovial membrane. The cartilaginous foci become pedunculated and may be sequestered into the synovial cavity to form a loose body and the center focus may calcify and ossify.

In this case, 25 years old female complained pain since 3 years ago, the pain was getting worse until the patient had difficulties to walk and move her right knee. Patient also complained sometimes locking was happened on her right knee. Clinical examination revealed the ROM of the right knee was 10°/45°. The radiographic imaging revealed multiple cartilaginous foci around the anterior and posterior side of the right knee. The histopathologic finding revealed numerous rounded masses of cartilage, often with bony center are seen lying immediately under the surface of synovial membrane.

The patient was treated with two step anterior and posterior synovectomy, and also mobilization under anesthesia. The goal of the treatment was to relive pain, prevent locking symptom and return the functional outcome of the right knee. The result was the patient pain relieved, no locking sign, and the ROM of the right knee was 0°/90°.

Keyword: Synovial Chondromatosis, synovectomy, pain, locking sign, functional outcome

P-20

Non other specified (NOS) osteosarcoma on the diaphysis of femur: A case report

Ida Bagus Gede DARMA WIBAWA¹⁾, Gede Eka WIRATNAYA²⁾

¹⁾Orthopaedic and Traumatology Resident, Medical Faculty Udayana University, Sanglah General Hospital, Denpasar, Bali, Indonesia, ²⁾Orthopaedic Oncology Consultant, Medical Faculty Udayana University, Sanglah General Hospital, Denpasar Bali, Indonesia

Background: Osteosarcoma is the most common type of bone sarcoma with incidence 0.3 per 100,000 per year. Predominantly, metaphysis of long bone is affected site (91%). NOS (Non Other Specified) Osteosarcomas, is considered as conventional osteosarcoma that is characterized by mixed matrix produced under pathological evaluation.

Case Report: A case report of a 15 year old boy who suffered with a giant lump on right femur 9 months prior to admission with progressive enlargement and severe pain. Early diagnosis was Ewing sarcoma of right femur with metastases to left lung. Then patient was performed right hip disarticulation 4 months ago. Post operative pathological examination proved differently and diagnosis with NOS osteosarcoma.

Patient was planned to continue treatment with chemotherapies, but cancelled due to economical problem. Patient came again for chemotherapies this month but Chest X-ray has shown multiple metastases to both lungs.

Conclusion: Patient with NOS Osteosarcoma on diaphysis of long bone be can be mimicking other type of sarcoma especially Ewing sarcoma. Pathological evaluation play an important role in determining of sarcoma's cells. After diagnosis is confirmed, immediate chemotherapies should be given to prevent further metastases even after limb amputation.

Key words: NOS Osteosarcoma, osteosarcoma, on the diaphysis of femur, case report

P-21

Tuberculous osteomyelitis mimicking a lytic bone tumor: Report of two cases and literature review

I Wayan Restu B SUSILA¹⁾, Gede Eka WIRATNAYA²⁾

¹⁾Orthopaedic and Traumatology Resident, Medical Faculty Udayana University, Sanglah General Hospital, Denpasar, Bali, Indonesia, ²⁾Orthopaedic and Traumatology Consultant, Medical Faculty Udayana University, Sanglah General Hospital, Denpasar, Bali, Indonesia

Summary: Etiology of lytic bone lesions include benign, malignant and infectious processes. Here, we present three cases of patients presenting with soft tissue mass and a lytic bone lesion. Biopsy revealed granulomatous osteomyelitis. Lesion culture eventually identified *Mycobacterium tuberculosis*. We emphasize that tuberculosis can cause primary lytic bone lesions, even in the absence of pulmonary symptoms or known exposure, and advise clinicians to include mycobacterial cultures when analyzing biopsies of lytic bone lesions.

Key words: bone tumor, TB