

# THE 5th KURE INTERNATIONAL MEDICAL FORUM(K-INT)



## IN 2012 EMERGENCY MEDICINE IN ASIA — How do we deal with it? —

July 20, 21, 22

AT National Hospital Organization

Kure Medical Center,  
Chugoku Cancer Center

## Program and Proceedings

### 第5回 呉国際医療フォーラム

- 会 長：上池 渉（院長）
- 開催期間：2012年7月20(金)・21(土)・22(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



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不必要な右心室ペースティングを  
減らし、持続性AFの  
発症リスクを低減する



指導管理料が算定された  
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「ケアリンク」対応



ペースメーカーが、豊富な診断機能と治療オプションを搭載しました。世界で初めてペースメーカーに採用された、胸郭内インピーダンスモニタリング機能 (OptiVol) を始め、メドトロニックのICD、CRT-Dで培われた数々の最先端テクノロジーが集結。従来の徐脈治療の枠を超えた、ペースメーカーの新しい姿を提案します。

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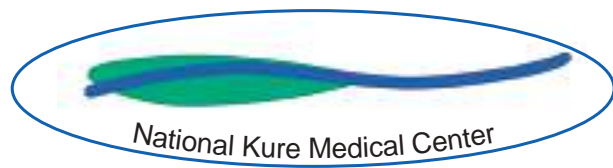


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**The 5th Kure International Medical Forum (K-INT)**

**“Emergency Medicine in Asia”**

**- How do we deal with it?-**



**July 19, 20, 21, 22, 2012**

**At National Hospital Organization**

**Kure Medical Center / Chugoku Cancer Center**



Wataru KAMIIKE, M.D., Ph.D.  
President of the 5th *K-INT*  
Clinical Professor

## Message from the President

On behalf of the Organizing Committee, it is a privilege and a pleasure to invite you to the Fifth Kure International Medical Forum, K-INT, to be held in Kure, Hiroshima, Japan, on July 20- 22, 2012. The meeting is scheduled to take place at the Convention Hall of the National Hospital Organization Kure Medical Center/ Chugoku Cancer Center, overlooking Kure Bay and the Inland Sea. The Organizing Committee, in collaboration with our International Advisory Board, is making every effort to put together an exciting program covering important achievements in EMERGENCY MEDICINE IN ASIA ·How do we deal with it?

It has now been just over one year since the Great East Japan Earthquake and Fukushima Nuclear Accidents. Not only in Japan, but across Asia, we are facing a difficult task in the wake of so many disasters in 2011: torrential rains in Korea and Thailand, a typhoon in Philippines, and the accident on a Bullet train in China. The 5th K-INT would welcome lively discussion of this timely theme.

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

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



# Kure International Medical Forum

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<b>Prof. Kouichi Tanigawa</b> Hiroshima University Graduate School of Biochemical Sciences	<b>Dr. Takeo Tanaka</b> NHO Hiroshima-Nishi Medical center	<b>Dr. Toshiharu Kawamoto</b> NHO KMC CCC*	<b>Dr. Yukinobu Yoshikawa</b> NHO KMC CCC*
<b>Dr. Kikuo Nakano</b> NHO KMC CCC*	<b>Dr. Yasusuke Miyagatani</b> NHO KMC CCC*	<b>Dr. Tomoya Mizunoe</b> NHO KMC CCC*	<b>Mr. Ikuo Kane</b> NHO KMC CCC*

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

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<b>Prof. Aileen Wee</b> National University Hospital, Singapore	<b>Prof. Chuen Neng Lee</b> National University Hospital, Singapore	<b>Dr. Thiti Kuakpaetoon</b> Rajavithi Hospital, Thailand
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## Organizing Committee of the 5th K-INT

Chairman  
**Wataru Kamiike**

### Organizers

<b>Takashi Sugita</b>	<b>Katsuyuki Moriwaki</b>	<b>Terumi Aoshiba</b>	<b>Kiyomi Taniyama</b>
<u>Members</u>			
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<b>Kazuaki Miyamoto</b>	<b>Minoru Takebayashi</b>	<b>Masahiro Tanemura</b>	<b>Yoshinori Yamashita</b>

## Headquarters

**Mr. Shuji Kigawa**

**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: 0823-21-0478  
Homepage: <http://www.kure-nh.go.jp/english/index.html>



# Program

# The 5th Kure International Medical Forum (K-INT)

## ***“EMERGENCY MEDICINE IN ASIA”***

### ***-How do we deal with it?-***

July 20 (Fri.), 21 (Sat.), 22 (Sun.), 2012

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 19 Thursday, 2012

### ➤ **SATELLITE PROGRAM**

1. Inspection Tour of NHO KMC CCC 10:00- 11:30
2. Inspection Tour of NHO KMC CCC Training Center 13:30- 15:00
3. Invited Lecture for Student Nurses 15:30- 16:30
  - 1) Sunetra KAEWVICHEN Bangkok, Thailand  
*Nursing Management for Critical Illness*
  - 2) Suwadee NILWISUTH Bangkok, Thailand  
*How to Prevent Perioperative Hypothermia in Children*
  - 3) Kamolmart SAISAARD Bangkok, Thailand  
*Emergency Preparedness and Disaster Planning Resources in Thailand Flood Crisis 2011*

## July 20 Friday, 2012

4. Opening Ceremony 16:00- 16:15
  - 1) Congratulations  
*By Kazutoshi KOMURA Mayor of Kure City*  
*By Yutaka HARA President of Kure Medical Association*
  - 2) Welcome and Opening Address  
*By Wataru KAMIIKE President of the 5th K-INT*
5. Cerebration of the 5<sup>th</sup> K-INT 16:15- 17:00
  - 1) Cheering *by Cheering group of Student Nurse School of NHOKMC*
  - 2) Dance Performance *Peaceful dance by citizen volunteers*

6. July 20, Evening Session 17:00- 17:45

### ➤ **SYMPOSIUM- 1**

#### **“Heart Disease Emergency”**

Chaired by Issei KOMURO, Suita, Japan

- 1) Morihito MATSUDA Kure, Japan 17:00- 17:15  
*Characteristics and Outcomes of Patients Hospitalized for Heart Failure in Kure Medical Center and Chugoku Cancer Center*
- 2) Noritoshi ITO Suita, Japan 17:15- 17:30  
*Superiority of a Novel Index, Regional Brain Oxygen Saturation, over Conventional Indexes for Prediction of Neurological Outcomes in Cardiac-Arrest-On-Arrival Patients*
- 3) Mohd Idzwan bin ZAKARIA Kuala Lumpur, Malaysia 17:30- 17:45  
*Management of Acute Coronary Syndrome in the Emergency Department University Malaya Medical Centre (UMMC)*

7. July 20, Evening Seminar 18:30- 19:30

Chaired by Toshiharu KAWAMOTO, Kure, Japan

Issei KOMURO Suita, Japan  
*Novel Mechanisms and Treatments for Heart Failure*

Sponsored by TAKEDA PHARMACEUTICAL COMPANY LIMITED

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

At The Navy Beer Hall

# July 21 Saturday, 2012

9. July 21, Morning Session 10:00- 11:30

## ➤ SYMPOSIUM- 2

### “Pediatric Emergency”

Chaired by Yoshinobu NAKAGAWA, Zentsuji, Japan

- 1) Shuichi KATAYAMA Okayama, Japan 10:00- 10:15  
*Management of Tracheobronchial Foreign Bodies Aspiration: A Single Institution Experience*
- 2) Mahoko FURUJO Okayama, Japan 10:15- 10:30  
*Pediatric Endocrine Emergencies*
- 3) Shinsuke FURUYA Zentsuji, Japan 10:30- 10:45  
*Hypothermia Therapy after Cardiac Arrest.*
- 4) Jin Hee LEE Seoul, Korea 10:45- 11:00  
*Is Adjunctive Atropine Needed during Ketamine Sedation in Children?*
- 5) Achariya TONGSIN Bangkok, Thailand 11:00- 11:15  
*Surgical Emergency in the Neonates*
- 6) Ratanotai PLUBRUKARN Bangkok, Thailand 11:15- 11:30  
*A Review of Pediatric Injuries and Poisonings in Thailand*

10. July 21 Luncheon Seminar 12:00- 13:00

Chaired by Norikazu HAMADA, Kure, Japan

Nobuichi KASHIMURA Sapporo, Japan  
*Prevention of Surgical Site Infection and Medical Economy Considered from New Point of View  
-Bundle of Infection Control Measures and Future Prospects-*

Sponsored by JOHNSON & JOHNSON K.K. MEDICAL COMPANY

11. Group Photo 13:15- 13:30

12. Poster Discussion 13:30- 14:00

13. July 21, Afternoon Session 14:00- 17:00

## ➤ SYMPOSIUM- 3

### “Emergency Medicine for a Disaster”

Chaired by Koichi TANIGAWA, Hiroshima, Japan

- 1) Masaki MURAO Kure, Japan 14:00- 14:15  
*Our Support for the Great East Japan Earthquake Damage, National Hospital Organization (NHO) - Second Report*
- 2) Nobuyuki HIROHASHI Hiroshima, Japan 14:15- 14:30  
*Radiation Emergency Medical System and Role of Hiroshima University in the Management of Nuclear Catastrophe*
- 3) Pairoj KHRUEKARNCHANA Bangkok, Thailand 14:30- 14:45  
*Rajavithi Hospital and the Development of Emergency Medicine in Thailand*
- 4) Putu ASTAWA Bali, Indonesia 14:45- 15:00  
*Disaster Management Plan in Sanglah General Hospital, Bali*
- 5) Eillyne SEOW Singapore 15:00- 15:15  
*Errors, Quality Management and Patient Safety in the ED*

<Coffee Break>

## ➤ SYMPOSIUM- 4

### “Emergency Medicine for a Trauma”

Chaired by Takahiko HAMASAKI, Kure, Japan

- 1) Junichi FUNADA Toon, Japan 15:30- 15:45  
*Impact of Small Dense Low-Density Lipoprotein on Lipid Rich Coronary Plaques using IB-IVUS Volumetric Analysis*
- 2) Hiroki HACHISUKA Kure, Japan 15:45- 16:00  
*Disaster in Upper Extremities: Functional Reconstruction and Tissue Salvage*
- 3) Yoshihiro MIYATA Hiroshima, Japan 16:00- 16:15  
*Successful Repair of Extensive Tracheobronchial Injury with Pedicled Intercostal Muscle Graft*



- |    |  |                   |              |
|----|--|-------------------|--------------|
| 4) | Lanang Artha WIGUNA  | Bali, Indonesia   | 16:15- 16:30 |
|    | <i>Spine Damage Control Surgery: Rationale and Timing of Surgery</i> |                   |              |
| 5) | Wikunda PATSINSIRI   | Bangkok, Thailand | 16:30- 16:45 |
|    | <i>Another Role of Emergency Physician as a Teacher</i>              |                   |              |
| 6) | Malcolm MAHADEVAN  | Singapore         | 16:45- 17:00 |
|    | <i>Saving More Lives in Sepsis the Golden Hours</i>                  |                   |              |

14. Closing Ceremony 17:15- 17:30

*By Takashi SUGITA* *Vice- President of the 5th K-INT*

15. July 21 Evening Seminar 17:30- 18:30

Chaired by Yoshinori YAMASHITA, Kure, Japan

- |    |  |                  |
|----|--|------------------|
| 1) | Hiroyuki MATSUDA   | Hiroshima, Japan |
|    | <i>Current Status of Strategy for Esophageal Cancer Treatment</i>                |                  |
| 2) | Yoshiyuki YAMAGUCHI  | Kurashiki, Japan |
|    | <i>Chemotherapy of Metastatic Colorectal Cancer -DIF and Future Perspective-</i> |                  |
|    | Sponsored by TAIHO PHARMACEUTICAL CO., LTD.                                      |                  |

16. Farewell Banquet 17:30- 18:00

*By Katsuyuki MORIWAKI* *Vice- President of the 5th K-INT*

17. July 21, Poster Session 10:00- 16:00 Mounting: 9:00- 10:00

➤ **POSTER SESSION**

Viewing: 10:00- 16:00

Discussion: 13:30- 14:00

- |     |  |                 |
|-----|--|-----------------|
| P-1 | Teppe FUJITA et al.  | Toon, Japan     |
|     | <i>A Rare Case of Multiple Coronary Aneurysms following Peri-stent Contrast Staining after Sirolimus-eluting Stents Implantation.</i>    |                 |
| P-2 | Fumiko MATSUFURU et al.  | Kure, Japan     |
|     | <i>Health Information Management Office in Kure Medical Center and Chugoku Cancer Center- Second Report</i>                              |                 |
| P-3 | Kazumi TSUBOI et al.   | Kure, Japan     |
|     | <i>Hospital Meals Services Policy in Kure Medical Center and Chugoku Cancer Center- Second Report</i>                                    |                 |
| P-4 | Chieko SENJO et al.  | Kure, Japan     |
|     | <i>Nurses as Members of the Disaster Medical Assistance Team during the Great East Japan Disaster of 2011. - Second Report</i>           |                 |
| P-5 | Takeshi MORIMITSU et al.   | Kure, Japan     |
|     | <i>Multi-drug-resistant Bacilli Detected in the Emergency Center of the Kure Medical Center and Chugoku Cancer Center- Second Report</i> |                 |
| P-6 | Roger LEO et al.   | Bali, Indonesia |
|     | <i>Comparison of TGF-<math>\beta</math> Level in Femoral Fracture in Mice Injected with Leptin Peripherally</i>                          |                 |
| P-7 | Kadek Pasek BUDIANA et al.   | Bali, Indonesia |
|     | <i>Characteristic T-Score of the Hip in Elderly Women in Bali</i>  |                 |
| P-8 | Erwin SASPRADITYA et al.   | Bali, Indonesia |
|     | <i>Cervical Fracture with Improving Motoric Function Post Stabilization Using Reconstruction plate 3.5 mm - A Case Report</i>            |                 |
| P-9 | Sirirat ULARNTINON et al.  | Bangkok, Japan  |
|     | <i>Psychopathological Consequences in Children at 3 Years after Tsunami Disaster in Thailand</i>   |                 |

Removal: 16:00-16:30

## July 22 Sunday, 2012

18. July 22, Sunday Session 10:00- 16:00

Chaired by Kiyomi TANIYAMA, Kure, Japan

“Free discussion on the prospect for the 6<sup>th</sup> K-INT” 10:00 –12:00

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

# Proceedings

## TOPICS

Emergency Medicine in Asia: How do we deal with it?

## ABSTRACTS

July 20 Friday, 2012

### ➤ SYMPOSIUM- 1

**“Heart Disease Emergency”**

July 21 Saturday, 2012

### ➤ SYMPOSIUM- 2

**“Pediatric Emergency”**

### ➤ SYMPOSIUM- 3

**“Emergency Medicine for a Disaster”**

### ➤ SYMPOSIUM- 4

**“Emergency Medicine for a Trauma”**

### ➤ POSTER SESSION

July 22 Sunday, 2012

### ➤ SUNDAY SESSION

## TOPICS

### **Emergency Medicine in Asia: How do we deal with it?**



Yasusuke Miyagatani, M.D., Ph.D.  
Director, Trauma and Critical Care Center,  
NHO Kure Medical Center and  
Chugoku Cancer Center

Emergency physicians have to undertake immediate and acute intervention to resuscitate and stabilize patients in hospitals, in pre-hospital settings and wherever immediate medical care is needed. Injuries and sudden illnesses are commonly treated on an emergency basis.

Asia has been struck by earthquakes and a tsunami in recent years. The Sumatra Andaman earthquake in 2004, Kashmir earthquake in 2005, Pangandaran earthquake in 2006, Sichuan earthquake in 2008, Tohoku-district Pacific Ocean earthquake in 2011 and Eastern Indian Ocean earthquake in 2012 destroyed the human and natural environment, and the reconstruction is far beyond the capacity of any single nation. Asian countries have to cooperate in order to recover from the losses that were inflicted by these disasters. Indeed, immediately after the Pacific Ocean earthquake, Tohoku-district received medical assistance, rescue teams, and donations from many Asian countries. The Japanese people greatly appreciate their generosity and will never forget the value of this cooperation.

In the 5<sup>th</sup> K-INT, we will discuss the most recent issue of emergency in heart disease, children, disaster and trauma, and seek better ways of collaboration in Asia.

## Characteristics and Outcomes of Patients Hospitalized for Heart Failure in Kure Medical Center and Chugoku Cancer Center

Morihiro MATSUDA

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

The increasing prevalence and the high readmission rate of acute heart failure (AHF), which might be associated with an increasing elderly ratio of people, are critical issues for developed countries. Kure Medical Center/Chugoku Cancer Center (KMC/CCC) is the core emergency hospital in Kure City, Japan, where elderly people over the age of 65 years account for 28.2% of the population. This representation of the elderly is the Japan's highest in all cities with a population of over 150,000 people in 2010.

The present report describes the clinical characteristics of patients with AHF in Kure City, and the similarities and differences in characteristics of these patients compared with those in representative epidemiological studies on AHF in Japan (ATTEND) and Western countries (ADHERE and EHFSII).

The subjects were 227 consecutive patients with AHF hospitalized in KMC/CCC from 2009 to 2011. Their mean age was  $80.0 \pm 9.9$  years; where 76.7% were over 75 years, and 30.9% were over 85 years, indicating high proportion of elderly patients with AHF compared to those in other studies. The percentage of patients with  $EF < 40\%$  was 27.9%, while that with  $EF \geq 50\%$  was 53.4%, indicating that the ratio for AHF with reduced EF is low, and AHF with preserved EF is high, compared to that reported in other studies. Regarding in-hospital management, noninvasive positive pressure ventilation (NPPV) was performed in 50.9% of the patients, while intubation was performed only in 2.2% of those, which is different from that described in ATTEND. Regarding oral medications at discharge, the prescribed rates of  $\beta$ -blockers (67.3%), and angiotensin-converting enzyme inhibitors (ACEIs) or angiotensin II receptor blockers (ARBs) (85.4%) were similar to reported rates in other studies. On the other hand, rates of prescribed diuretics (37.2%) were very low. As a short-term outcome after discharge, the readmission rate within 6 months was 17.1%, which is very low compared to that in Western countries. This might be attributed not only to the medications, but also multidisciplinary education of patients and local liaison with referring physicians for preventing recurrence of AHF.



**Morihiro MATSUDA, M.D., Ph.D.**

Department of Cardiology, National Hospital Organization (NHO), Kure Medical Center and Chugoku Cancer Center (KMC CCC)

EDUCATION

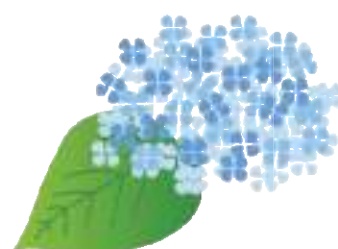
1994	M.D., Faculty of Medicine, Osaka University
2002	Ph.D., Graduate School of Medicine, Osaka Univ., Osaka, Japan

WORKING EXPERIENCE

1994-1995	Intern Doctor, Osaka University Hospital
1995-1996	Intern Doctor, NHO KMC CCC
1996-1998	Resident, Dept. of Cardiology, NHO KMC CCC
1999-2001	Research fellow, Dept. of Molecular Genetics (Profs. Brown and Goldstein), Southwestern Medical Center, Univ. of Texas, USA
2002-2003	Project Researcher, Dept. of Medicine and Pathophysiology, Graduate School of Frontier Biosciences, Osaka University
2003	Research Fellow of the Japan Society for the Promotion of Science
2003-2006	Project Assistant professor, Dept. of Medicine and Pathophysiology, Graduate School of Frontier Biosciences, Osaka University
2006-2008	Project Researcher, Department of Metabolic Medicine, Graduate School of Medicine, Osaka University
2008-present	Chief, Division of Pathophysiology, Institute of Clinical Research, NHO KMC CCC Chief physician, Dept. of Internal Medicine, NHO KMC CCC



(Memo)



## Superiority of a Novel Index, Regional Brain Oxygen Saturation, over Conventional Indexes for Prediction of Neurological Outcomes in Cardiac-Arrest-On-Arrival Patients

Noritoshi ITO

Senri Cardiovascular Center, Osaka Saiseikai Senri Hospital, Suita, Japan

**Background and Objective:** Base Excess (BE) and lactate were used as conventional indexes for prognostication of cardiac-arrest-on-arrival (CAOA) patients. As an index for prognostication, we focused on regional brain oxygen saturation (rSO<sub>2</sub>), which efficiency of prognostication after CABG was reported, and compared it with conventional indexes.

**Methods and Results:** Eighty two consecutive non-trauma, CAOAs were prospectively included. rSO<sub>2</sub> could be measured with sensors using a near-infrared spectroscopy device on hospital arrival, simultaneously with measurements of BE and lactate. The area under the curve (AUC) for predicting poor neurological outcome for rSO<sub>2</sub> was significantly greater than that for BE and or for lactate. We categorised our patients into 3 groups using rSO<sub>2</sub> on hospital arrival in a post hoc analysis. Patients with good neurological outcome were as follows: 0/52 (0%) with rSO<sub>2</sub> ≤ 25%; 2/9 (22%) with rSO<sub>2</sub> 26-40%, and 11/21 (52%) with rSO<sub>2</sub> > 40% (p < 0.0001).

**Conclusion:** rSO<sub>2</sub> on hospital arrival may help predict neurological outcomes at hospital discharge in patients with OHCA compared with conventional indexes.

**Noritoshi ITO, M.D.**

Director of Cardiovascular Center, Osaka Saiseikai Senri Hospital, Suita, Japan

EDUCATION

2001 M.D., Graduation of Nara Medical University

WORKING EXPERIENCE

2001- 2002	Nara Medical University Hospital
2002- 2004	Minoh City Hospital
2004- 2007	Heart Center, Otemae Hospital
2007- 2012	Senri Ciritical Medical Center, Osaka Saiseikai Senri Hospital
2009- present	Director of Critical & Cardiovascular Care Unit, Osaka Saiseikai Senri Hospital (Additional Post)
2011- present	Specially appointed Researcher, Department of Cardiovascular Medicine, Osaka University Graduate School of Medicine (Additional Post)
2012- present	Director of Cardiovascular Center, Osaka Saiseikai Senri Hospital



(Memo)



## **Management of Acute Coronary Syndrome in the Emergency Department University Malaya Medical Centre (UMMC)**

Mohd Idzwan bin ZAKARIA<sup>1</sup>, Lwin TINT<sup>1</sup>, Alexander LOCH<sup>2</sup>

<sup>1</sup>Trauma and Emergency Department, UMMC, Kuala Lumpur, Malaysia

<sup>2</sup>Cardiology Unit, Department of Medicine, UMMC, Kuala Lumpur, Malaysia

The University Malaya Medical Centre (UMMC) is a tertiary referral centre and the oldest university hospital in Malaysia. The presence of the emergency physicians and the masters of emergency medicine programme have helped to highlight the importance of door to needle time and door to balloon time for STEMI. Standard of care of acute coronary syndrome (ACS) patients in UMMC are directed towards the National Health Indicators and current guidelines. Protocol based thrombolytic therapy using streptokinase has been implemented and is effective in guiding doctors through the process. However, potential delays have yet to be discussed and analyzed. Primary percutaneous coronary intervention has been implemented and has been used as a model for the country. The service has benefitted the training of emergency medicine residents especially in terms of experiencing the clinical managements and systems. This presentation also highlights the missing link in the chain of survival in ACS in UMMC namely pre-hospital thrombolytic therapy, lay person CPR, advanced life support ambulance provider, availability of 24 hours PCI service etc.



**Associate Prof. Dr. Mohd Idzwan bin ZAKARIA MB Bch BAO (Ireland)  
MMed (Emerg Med) USM AMM**

Head and Consultant Emergency Physician, Trauma and Emergency,  
Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia

EDUCATION

1996 MB Bch BAO University College Galway, Galway, Ireland  
2004 MMed (Emergency Medicine) University Sains Malaysia

WORKING EXPERIENCE

2004 - 2007 Lecturer in emergency medicine and Emergency medicine specialist,  
School of Medical Sciences, University Sains Malaysia  
2007 - 2011 Coordinator Programme for Postgraduate and Undergraduate  
Training of Emergency Medicine, University of Malaya  
2007 - present Member, Board of Examiners (undergraduate and postgraduate)  
University Malaya  
2011 - present Associate Professor in Emergency Medicine, Trauma and Emergency  
Academic Unit, Faculty of Medicine, University of Malaya  
2008 - present Head and Consultant Emergency Physician, Trauma and Emergency,  
University Malaya Medical Centre, Lembah Pantai, 59100 Kuala  
Lumpur



(Memo)



## **Management of tracheobronchial foreign bodies aspiration: A single institution experience**

Shuichi KATAYAMA, Takafumi GOTO, Yusuke TAKAHASHI, Takeshi ASAI,  
Sayaka NAKAMURA, Takahiro OHKURA

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

The aim of this study is to review the clinical presentation, management and outcome of children with tracheobronchial foreign bodies. The medical records of 31 children who underwent bronchoscopy for suspected foreign body aspiration (FBA) were analysed. The foreign body was successfully removed in 22 cases and was not found in the other 9 cases. Aspiration objects were digestive in 17 of 22 cases (77%), while 5 cases (23%) were non-digestive, such as a pin, a needle, a bead, etc. Tracheobronchial FBA is a significant cause of childhood morbidity and mortality. Early diagnosis and treatment is of the most importance. Although aspiration objects are radio-free in some cases, FBA is always considered when the clinical symptoms and history of FBA are recognized. Bronchoscopy under general anesthesia should be performed in all patients suspected of FBA to minimize the risk of morbidity and mortality in patients with FBA.

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Staff Pediatric Surgeon, National Hospital Organization Okayama Medical Center

EDUCATION

2001 M.D., Kawasaki Medical University Hospital, Okayama, Japan

WORKING EXPERIENCE

2004-2008 Resident, National Hospital Organization Okayama Medical Center, Okayama, Japan

2008-2010 Research Fellow, Cincinnati Children's Hospital Medical Center, Ohio, USA

2012- Staff Pediatric Surgeon, National Hospital Organization Okayama Medical Center, Okayama, Japan



(Memo)



## **Pediatric Endocrine Emergencies**

Mahoko FURUJO, Toshihide KUBO

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Acute or chronic failure of a gland could result in catastrophic illness or death for child patients. Therefore, it is important to recognize and manage these endocrine emergencies appropriately. In this presentation, I will show the crises involving the adrenal glands and thyroid, which include thyroid storm, diabetic ketoacidosis and hypoglycemia, and abnormalities in calcium; hypercalcemic crisis and acute hypocalcemia and sodium and water balance; and diabetes insipidus and syndrome of inappropriate antidiuretic hormone (SIADH). Further, disorders of sexual development (DSD) are social emergency in the decision of sex at birth.



**Mahoko FURUJO, M.D.**

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EDUCATION

1993 M.D., Hamamatsu University school of medicine,  
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WORKING EXPERIENCE

1993-1997 Resident of Pediatrics, Okayama Medical Center,  
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1997-present Staff of Pediatric physician, Okayama Medical Center ,  
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(Memo)



## Hypothermia Therapy after Cardiac Arrest

Shinsuke FURUYA, Shigehiro NAGAI, Kazuya TERADA, Tomoko KIRINO

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We experienced two drowning infants.

Case 1: 10month infant was drowning in the bath, and she was brought to our hospital after 20 minutes. She was cardiopulmonary arrest and we did CPR. Her ECG was ventricular fibrillation and we did electrical shock.

After recovery from CPA, we did hypothermia therapy in additional to ordinary cardiopulmonary intensive care.

Case 2: 1 year and 4month infant was drowning into pond with car accident. He and his mother were in their car, his mother got out of it, but he was not able to escape from it.

He was rescued after 45minutes, and he was brought to our hospital with been performed CPR. After 1hour he was brought, he recovered from CPA and we did hypothermia therapy.

Case 1, she still needs daily cares and now stays in the hospital, but case 2, he got discharged after 47days.

Many factors affect neurological prognosis after cardiac arrest. Our cases have different neurological prognosis, and we think hypothermia and hypothermia therapy contributed good prognosis for case 2. We think hypothermia therapy can contribute better neurological prognosis of children after cardiac arrest.

**Shinsuke FURUYA, M.D.**

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EDUCATION

2000-2008 M.D., Kyoto Prefectural University of medicine, Kyoto, Japan

WORKING EXPERIENCE

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(Memo)



## Is adjunctive atropine needed during ketamine sedation in children?

Jin Hee LEE, Yu Chan KYE, Joong Eui RHEE, Kyuseok KIM, Tae Yun KIM, You Hwan JO, Kyeong Won KANG

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### Introduction:

The prophylactic coadministration of atropine or other anticholinergics during dissociative sedation has historically been considered mandatory to mitigate ketamine-associated hypersalivation. There were two recent studies of adjunctive atropine. However there was a controversy. Therefore, we compared the incidence of hypersalivation, change of secretion amount, and related side effects when using either atropine or placebo as an adjunct to intravenous ketamine sedation in the emergency department

### Methods:

In this randomized controlled trial, children aged between 1 and 16 years of age requiring ketamine procedural sedation in a tertiary emergency department were randomized to receive 0.01 mg/kg of atropine or placebo. All received 2mg/kg of intravenous ketamine. Treating physicians rated excessive salivation on a 100-mm visual analog scale at presedation and after procedure, and recorded the frequency and nature of airway complications and interventions for hypersalivation.

### Results:

A total of 132 patients aged were enrolled over a 26 month period. Baseline characteristics didn't differ between the atropine and the placebo group ( $p > 0.05$ ). The amount of secretion was significantly more increased in placebo group than in atropine group ( $2.2 \pm 1.5$  (presedation) to  $1.7 \pm 1.1$  (postprocedure) vs  $2.3 \pm 1.4$  (presedation) to  $2.7 \pm 1.7$  (postprocedure), atropine vs placebo, respectively, reported as mean  $\pm$  SD) ( $p < 0.05$ ). 7/69 (10.1%) patient in placebo group and 1/68 (1.5%) in atropine group were assigned visual analog scale ratings of greater than 50mm. However, only 2 in these patients needed medical procedure such as suction or airway repositioning. Heart rate was significantly increased in atropine group compared than placebo group ( $p < 0.05$ ). There were no reliable differences between groups on the remaining adverse events.

### Discussion:

The use of atropine as an adjunct for intravenous ketamine sedation in children significantly reduced oral secretion. however, there wasn't increased salivation to need medical procedures such as suction, and few side effects related airway in the majority of subjects. And there was more tachycardia in atropine group. The incidence of vomiting, desaturation, the need of airway repositioning were much higher in placebo group, however, there was no significant difference. We concluded that atropine as an adjunct to intravenous ketamine sedation in children significantly reduces hypersalivation, however, there was no clinical benefit.

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**EDUCATION**

- 1999                      M.D., Yonsei University Wonju College of Medicine, Gangwondo,  
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**WORKING EXPERIENCE**

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- 2005-2008              Fellowship, Department of Emergency medicine, Severance  
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- 2008-present           Staff, Department of Emergency medicine, Seoul National  
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(Memo)



## Surgical Emergency in the Neonates

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**Background:** Surgical emergency in the neonates is a congenital serious and dangerous event or situation which need immediate surgical action to deal with it. Congenital diaphragmatic hernia (CDH) and esophageal atresia (EA) are the most common conditions which cause respiratory distress in the first few hours of life. Gastroschisis (GS) is the most common abdominal wall defect which needs prompt surgical management after birth.

**Objective:** To elucidate the incidence, management and outcomes of CDH, EA and GS.

**Material and Methods:** A retrospective analysis of patients diagnosed with CDH, EA and GS, who were treated at the Neonatal Surgical Units (NSU), Department of Surgery, Queen Sirikit National Institute of Child Health, during January 2009 to December 2011, was carried out.

**Results:** A total of 1,196 patients were treated at the NSU. Thirty-three (2.8%) had CDH, 89 (7.4%) had EA and 187 (15.6%) had GS. Preoperatively, 29 cases of CDH required conventional ventilator and 5 required no ventilator support, 5 suffered from severe pulmonary hypertension and passed away before surgery. Twenty-eight patients underwent primary repair of diaphragmatic defect. Age at repair was 2-12 days (mean 4.4). Survival rate in operated case was 92.8% and overall survival rate was 78.8%. Of 89 patients with EA, 46 required conventional ventilator in preoperative period, 21 underwent primary repair of the esophagus, 68 had staged repair of the esophagus. Nine patients subsequently passed away from severe congenital heart disease. The overall survival rate was 89.9%. Of 187 patients with GS, 59 required conventional ventilator in preoperative period, 108 underwent primary closure of abdominal wall defect, 79 had staged closure. Nine patients subsequently passed away from respiratory failure and septicemia. The overall survival rate was 95%.

**Conclusions:** More than one fourth of the neonates with congenital surgical anomalies require immediate surgical management. Related congenital anomalies influence successful treatment and outcomes of these conditions. The excellent outcomes of this study are comparable with those of international tertiary centers in the developed countries.



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**EDUCATION**

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**WORKING EXPERIENCE**

2000-present        Senior Staff, Pediatric Surgeon, Department of surgery,  
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(Memo)



## A review of pediatric injuries and poisonings in Thailand

Ratanotai PLUBRUKARN

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Injuries and poisonings are common causes of mortality, morbidity, and disability in children who are at risk because of their curiosity, limited abilities and knowledge in certain ages and situations. Adult supervision and unsafe environment are contributing factors especially in childhood periods.

In children 0-14 years of age, during 1999 to 2005, there were 6716 boys and 3655 girls suffered from near drowning, 3266 boys and 1738 girls had traffic injuries 437 boys and 154 girls were injured by electric accident, 396 boys and 203 girls were admitted because of suffocation, 164 boys and 134 girls suffered from natural disaster, 107 boys and 125 girls had been admitted because of poisoning and 106 boys and 98 girls got burn injuries. In 2010, 514 children or 12.83/100,000 died from drowning with peak incidence at 5 to 6 years of age. Traffic injury is the principal cause of death and injuries in children of all ages except preschool group. In Bangkok motor vehicle accident is accounted for an average of 300 childhood and adolescent death. Poisonings are relatively high in children less than 4 years old, drugs, hydrocarbon, insecticides, and corrosive substances were leading agents. For injuries caused by animals, dog bite and snakebite were the major causes.

Lead poisoning was an emerging problem in children in some specific areas such as Burmese refugee camp in Umpang Distric, Tak province (Year 2012) and Karen people living in lower Clitty Creek, Kanchanaburi Province (Year 2002). The Ministry of Public Health, together with the Ministry of Science, the Ministry of Industry has worked together to assess about the exposure and health risks of these population.

Regarding pediatric intentional injuries, there were about 7000 cases each year sent to One Stop Crisis Center all over the country with suspected of child abuse. Early detection and concern from health personnel together with collaboration from multidisciplinary teams will be the appropriate ways to deal with these problems.

As shown in the above review, injuries and poisonings in children mostly result in poor outcome. Additional public health measures to prevent and ameliorate the problems should be emphasized.

**Ratanotai PLUBRUKARN, M.D.**

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EDUCATION

- Bsc. Mahidol University
- M.D. Siriraj Medical School, Mahidol University
- Thai Board Certificate in Pediatrics
- Thai Board Certificate in Child and Adolescent Psychiatry
- Thai Board Certificate in Development and Behavioral Pediatrics

WORKING EXPERIENCE

- Child Development training at Tokyo Women Medical college, Japan
- Child Development training at Tel-Aviv University, Tel Aviv, Israel
- Master in Health Personnel Education from University of New South Wales, Australia



(Memo)



## Our Support for the Great East Japan Earthquake damage, National Hospital Organization (NHO) – Second Report

Masaki MURAO

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### 1. Disaster Medical Assistant Team (DMAT)

NHO National Disaster Medical Center commanded 340 DMATs as a command post and conveyed hundreds of hospitalized patients and triaged patients. NHO dispatched 34 DMAT teams consisting of 160 medical staff from 21 hospitals. At this disaster, the tsunami caused terrible damage, isolation by breakdown of the traffic network, lack of information, food and combustible fuel. For these elements, DMATs worked in severe conditions.

### 2. Medical teams

After DMATs provided medical care, NHO dispatched 127 medical teams consisting of 620 medical staff from 71 hospitals for medical support to evacuation centers. In the disaster area, it was difficult to meet medical needs; medical teams visited each evacuation center and provided medical care.

### 3. Mental healthcare teams

Victims lost their family members or houses; NHO dispatched 73 mental healthcare teams, consisting of 290 medical staff from 10 hospitals to tend to their mental health needs.

### 4. Provisions for victims

NHO hospitals provided medical care to victims both within and outside of disaster areas. Overall, NHO provided care to 11,800 victims all around the country.

**Masaki MURAO, M.D.<sup>1), 2)</sup>**

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**EDUCATION**

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(Memo)



## **Radiation Emergency Medical System and Role of Hiroshima University in the Management of Nuclear Catastrophe**

Nobuyuki HIROHASHI

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Hiroshima University serves as the tertiary radiation emergency medicine facility in medical care of patients who have received severe exposure. We are responsible for treatment and providing necessary support and advice for local organizations giving medical care after radiation exposure.

Since March 11, 2011, 37 teams of Hiroshima University were sent to Fukushima prefecture. We established the medical control team at the offsite center, and helped Fukushima Medical University for taking care of the contaminated workers. We also used instruments in radiation detection quantification at the evacuation site, and helped the temporary visit of evacuated people. We stayed at the Japan Football Village (a hub for the rear of Fukushima I Nuclear Power Plant ). Now we still stay at the emergency room at Fukushima I Nuclear Power Plant for 48 hours, once a month for workers. We who are emergency and critical care physicians, are not many, but are central roles in the most of radiation emergency medical responses. Further development of emergency medical systems for radiation exposure, and education of medical staff and students, are urgently needed.



**Nobuyuki HIROHASHI, M.D., Ph.D.**

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EDUCATION

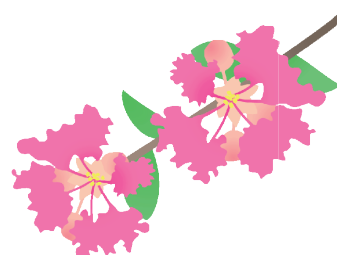
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WORKING EXPERIENCE

- 1989-1990 Resident, the Emergency and Critical Care Center, Kurume  
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1999-2002 Assistant Professor, Dept. of Emergency and Critical Care  
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2002-2005 Lecturer, Dept. of Emergency and Critical Care Medicine,  
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2007- present Associate Professor, Dept. of Emergency and Critical Care  
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(Memo)



## **Rajavithi Hospital and the Development of Emergency Medicine in Thailand**

Pairoj KHRUEKARNCHANA

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Rajavithi Hospital, Department of Medical Services, Ministry of Public Health, Bangkok, Thailand

Once you had an experience with a severe sickness while travelling aboard or even travelling in the rural area of your own country! You would certainly understand the importance to have the emergency department where can provide simple and standard emergency healthcare services! Especially in the first hour of severe sickness, the emergency medicine is the tool of medical care system for any emergency patient from out-of-hospital to in-hospital or emergency department.

It may be similar to your country at the beginning step during the development of emergency medicine. Our emergency room has been being also overlooked while we have to serve so many missions! It is always full of patients waiting for services and especially, the admission. Moreover, the personnel working in the ER as the front lines were not always the experienced, but most junior indeed.

The Narenthorn EMS Center of Rajavithi Hospital has started in working for the pre-hospital care system in Thailand since 1995, many years before the training program of emergency medicine. Compared to many countries especially USA, Australia, Canada or even Singapore and Hong Kong, our training of Emergency Medicine has started very late, but this 3-year curriculum of training was recognized as one specialty by the approval of the Medical Council of Thailand 1 year before the starting point in 2004. The Department of Emergency Medicine of Rajavithi Hospital was the one of first 9 institutes to start this training program. We are going to present the developmental milestones of Emergency Medicine at Rajavithi Hospital which could help one part to bringing the quality of emergency health services in Thailand.

## **Pairoj KHRUEKARNCHANA, M.D.**

1. Rajavithi Hospital
  - Head of Department of Emergency Medicine and Narenthorn EMS Center
  - Physician of Department of Orthopedic Surgery
2. Head of the Department of Emergency Medicine, Rangsit University School of Medicine
3. Board Committee of Training for Emergency Medicine under the Thai Medical Council
4. International Collaborator of Thai Association for Emergency Medicine

### EDUCATION

1991	M.D., Mahidol University School of Medicine, Siriraj Hospital, BKK, Thailand
1995	Visiting Fellow, Department of Orthopedic Surgery, Tokai University School of Medicine, Kanagawa, Thailand
1999	Board of Orthopedic Surgery, Mahidol University School of Medicine, Siriraj Hospital, BKK, Thailand
2003	Fellow of Shoulder Surgery, Department of Orthopedic Surgery, Tokai University School of Medicine, Kanagawa, Thailand
2005	Thai Board of Emergency Medicine, Thai Medical Council

### WORKING EXPERIENCE

1991 - 1992	Physician at Dansai Hospital, Loei, Thailand
1991 - 1992	Director of Na Haeo Hospital, Loei, Thailand
1999 - 2003	Orthopedic Surgeon, Srisangwal Hospital, Mae Hong Son, Thailand
2003 - present	Rajavithi Hospital, Department of Medical Services, Ministry of Public Health
2010	Medical Emergency Response Team to Had Yai Hospital, Songkhla Province for the Mission during Flooding Disaster
2011	Medical Emergency Response Team to Sawanpracharak Hospital, Nakornsawan Province for the Mission during Flooding Disaster
2011	Medical Emergency Response Team for the mission of the Ministry of Public Health and the Ministry of Foreign Affairs to work together with the Thai Embassy in Japan. Moreover, he has also worked in Otsuchi of Iwate Prefecture in the late of March 2011, together with AMDA (the NGO of Japan).



(Memo)



## **Disaster Management Plan in Sanglah General Hospital, Bali**

Putu ASTAWA, Lanang Artha WIGUNA

Orthopaedic and Traumatology Department Bali, Denpasar, Sanglah General Hospital, Denpasar-Bali, Indonesia

Bali, through its unique culture and beautiful landscape has been famous for its beauty around the world, that it got its nickname, God's Island. It attracts a lot of tourist from different countries around the world to visit. It's also a place for target operation of terrorist. In 2002, Bali 1st bombing, took place in kuta district, 202 people were pronounced dead, 240 people were injured. In 2005, Bali 2nd bombing, took place in kuta district and jimbaran, caused 26 dead and more than 100 injured.

After the first Bombing, Sanglah General Hospital activated Hospital Disaster Management Plan. The plan include Pre Hospital Management, and Hospital Management. Pre Hospital Management, includes fire brigade, police, scouts, paramedics that already trained to deal with the situation. Hospital management include, doctors, emergency physician, surgeon, emergency nurses.

The Most important aspect in hospital management is Triage, where we categorized the patient into 4 categories, red flag, yellow flag, green flag and black flag. With good aspect of communication, team work, so called rapid system establishment, in the 2nd Bali Bombing, the dead can be reduced until 26 dead and response time consume only 30 minutes.

## **Prof. Putu Astawa, MD, PhD**

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### EDUCATION

1971-1979	Udayana University, Medical Faculty, Bali, Indonesia
1979-1983	Udayana University, General Surgery Training, Denpasar, Bali, Indonesia
1984-1987	Airlangga University, Orthopaedic and Traumatology Training, Surabaya, Indonesia
2007	Doctoral Program Ph.D., Udayana University

### WORKING EXPERIENCE

1987- present	Orthopaedic and Traumatology Staff, Spine Consultant, Sanglah Hospital, Denpasar, Bali
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(Memo)



## Errors, Quality Management and Patient Safety in the ED

Eillyne SEOW

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Emergency healthcare providers work in a chaotic environment, which is time pressured, frequently overcrowded and filled with constant interruptions. Resources are often stretched; seriously ill patients mixed with those with routine and mundane problems. In this complex interplay of factors wrong decisions may be made.

### *When do we miss?*

Emergency healthcare providers are “interrupt-driven” and are therefore prone to distraction and thus, potentially to error. Handover of patients, times when there is overcrowding, bedblock, unpredicted patient surges, high noise levels or inadequate staffing are also dangerous for our patients.

### *Why can we miss?*

Our cognitive biases play a part in our decision-making. Emotions can cloud our clinical judgment. When these occur, we put our patients at risk. The presence of “authority gradient” can adversely impact the quality of communication between team members. This can lead to poor outcomes for our patients.

The physical layout and design of the Emergency Department can also contribute to patient safety.

### *Quality management*

The ability to capture these incidences (e.g. having an effective incident monitoring and reporting system), conduct critical investigations (e.g. using root cause analysis), or predict points where error may potentially occur (e.g. through the use of Failure Modes and Effects Analysis), enables us to act to reduce these incidences and thereby improve patient safety.

### *Technology*

Information technology can be used to enhance patient safety.

The increasing use of point of care testing has had a positive impact on the management of patients with time sensitive conditions.

### *Conclusion*

Leadership and teamwork is crucial to the building of a safety culture in the Emergency Department. There should be a blameless approach to adverse events and near misses. By understanding failure our team’s performance can be optimized and our patients’ safety can be enhanced.

## **Eillyne SEOW, MBBS, DIMC (Edin), FRCS (Edin), FRCP (Edin), FAMS**

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### EDUCATION

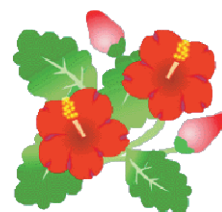
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### WORKING EXPERIENCE

1985- 1986 Housemanship in Singapore  
1986- 1990 Medical Officer postings in Singapore  
1990- 1991 Honorary registrar in A&E Department, Royal Infirmary of Edinburgh, Scotland, UK  
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1991- 1993 Registrar, Dept. of Emergency Medicine, Tan Tock Seng Hosp., Singapore  
1993- 1995 Senior Registrar, Dept. of Emergency Medicine, Tan Tock Seng Hosp., Singapore  
1994- 1995 Fellow in Emergency Medical Services in Medical College of Wisconsin, Milwaukee and the Milwaukee County Medical Services, Milwaukee, Wisconsin, USA.  
1995- 2001 Consultant, Dept. of Emergency Medicine, Tan Tock Seng Hosp., Singapore  
2001- present Sr Consultant, Dept. of Emergency Medicine, Tan Tock Seng Hosp., Singapore  
1995- 2001 Deputy Head, Emergency Dept., Tan Tock Seng Hospital, Singapore  
2001- 2010 Head, Emergency Dept., Tan Tock Seng Hospital, Singapore  
2004- 2005 Assistant Chairman Medical Board (Clinical Development), Tan Tock Seng Hospital  
2005- present Divisional Chairman (Ambulatory & Diagnostic Medicine), Tan Tock Seng hospital  
2005- 2014 Clinical Associate Professor, Yong Loo Lin School of Medicine, National University of Singapore



(Memo)





## Impact of Small Dense Low-density Lipoprotein on Lipid Rich Coronary Plaques using IB-IVUS Volumetric Analysis

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**Purpose:** The lipid-rich and inflamed coronary plaque is predisposed to rupture. It is well-established that the cholesterol content of the plaque originates from plasma and among lipoprotein subfractions, the small dense LDL (sdLDL) and remnant lipoproteins are considered particularly atherogenic. The aim of this study is to search for relationships between coronary plaque composition and plasma concentrations of atherogenic lipoproteins in humans using integrated backscatter intravascular ultrasound (IB-IVUS).

**Methods:** The total lipid volume (TLV) in non-culprit coronary lesions showing mild to moderate stenosis was assessed in identical coronary segments in forty patients undergoing percutaneous coronary intervention at baseline and after six months. The plaque composition of each segment was evaluated using a 40-MHz (motorized pullback 0.5 mm/s) intravascular catheter and a software for IB-IVUS. Clinical variables were measured twice and averaged.

**Results:** After 6 months, the TLV was decreased in 25 patients (Regressors), whilst it was increased in 15 patients (Progressors). Progressors had higher concentrations of sdLDL-C ( $41 \pm 19$  vs.  $22 \pm 12$  mg/dl,  $p=0.001$ ). There were small difference for LDL-C ( $127 \pm 32$  vs.  $107 \pm 22$  mg/dl,  $p<0.05$ ), triglycerides ( $p<0.05$ ) and HbA1c ( $p<0.01$ ). The chylomicron remnant content was assessed by plasma ApoB48 concentrations, which did not show a statistically significant difference ( $p=0.06$ ). Both HDL-C and blood pressure were equivalent between the groups. Linear regression analysis between % change in TLV and sdLDL-C showed a strong relationship ( $r=0.52$ ,  $p=0.001$ ).

**Conclusions:** This study provides direct evidence for atherogenicity of sdLDL with a strong association between lipid-rich plaque progression and the plasma concentration of sdLDL.

## **Jun-ichi FUNADA, M.D., Ph.D.**

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### EDUCATION

1990 M.D., Ehime University school of medicine, Toon, Ehime, Japan  
2002 Ph.D., Ehime University school of medicine, Toon, Ehime, Japan

### WORKING EXPERIENCE

1990 Resident, Ehime University Hospital, Ehime, Japan  
1995 Clinical staff, Division of Cardiology, Ehime National, Hospital, Ehime, Japan  
2004 Academic visitor, The Oxford Centre for Diabetes, Endocrinology and Metabolism, Churchill Hospital, University of Oxford, UK  
2006· present Chief of Clinical staff, Division of Cardiology, Ehime National, Hospital, Toon, Ehime, Japan



(Memo)



## **Disaster in Upper Extremities: Functional Reconstruction and Tissue Salvage**

Hiroki HACHISUKA, Norikazu HAMADA, Masanori YASUMOTO, Toshihiro MATSUO, Takahiko HAMASAKI, Yasunori IZUTA, Manabu NIITANI, Masahiro YOSHIKAWA, Takashi SUGITA

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Tissue salvage is an essential element for hand and micro-surgeons, when upper extremities are involved in severe disasters such as: finger or limb amputation, degloving injury, crush injury, or heat-press injury.

Over the past few decades, the purpose of hand surgeons has shifted to achieve more functional reconstruction and cosmetic improvement, not only tissue salvage. Various new surgical techniques and instruments have been developed for this purpose: functional composite grafts, various perforator flaps, locking bone fixation systems, artificial bone grafts, and artificial nerve grafts.

Recently in Japan, more successful functional reconstruction has been demanded, while the number of severe injury has been decreasing, depending on improvement of working conditions.

At NHO Kure Medical Center, the Hand and Microsurgery Section was established in the Department of Orthopaedic surgery four years ago. The number of hand operations was approximately 600 over four years. Our series contains some extraordinary, severe, rare, and difficult cases, including injuries, infections, and tumors. We also perform new surgical techniques in these cases, based on classic hand surgery techniques.

We will present these cases to demonstrate our treatment tactics to achieve functional reconstructions.

**Hiroki HACHISUKA, M.D., Ph.D.**

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EDUCATION

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WORKING EXPERIENCE

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| 2004- 2006    | Staff Surgeon, Tsuchiya General Hospital: Hiroshima Hand and Microsurgery Surgery Center, Hiroshima, Japan |
| 2006- 2007    | Research Fellow, Bernard O'Brien Institute of Microsurgery   |
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(Memo)



## Successful Repair of Extensive Tracheobronchial Injury with Pedicled Intercostal Muscle Graft

Yoshihiro MIYATA, Yasuhiro TSUTANI, Keizo MISUMI, Tomoharu YOSHIYA, Takahiro MIMAE, Yuta IBUKI, Morihito OKADA

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Tracheobronchial disruption is a rare, yet life threatening injury. We report two cases of tracheal injury that were treated successfully with a pedicled intercostal muscle graft.

(Case 1) A 26-year-old male developed multiple bone fracture after a motor vehicle accident. He also presented with massive subcutaneous emphysema, bilateral pneumothorax, lung injury, pneumomediastinum, and respiratory failure. Even after induction of general anesthesia and oral intubation, ventilation could not be maintained. A bronchoscopy revealed a ruptured the airway over the carina and right main and intermediate bronchus. Emergent surgical intervention was performed via a right posterolateral thoracotomy after a bilateral chest tube insertion. We observed multiple longitudinal tears (approximately 7 cm) in the membranous portion of the trachea and right main bronchus. Direct suturing of the trachea was impossible because of the vulnerable tissue. Tracheal defect was covered with pedicled 3rd intercostal muscle graft. To reduce pressure to the repaired sites, double ventilation, through oral intubation and tracheostomy, was started after surgery. At a 6-month follow-up, the patient had a good health status and bronchoscopy showed good patency over the injured region.

(Case 2) A 64-year-old male developed a high fever and pneumonia 20 days after an esophagectomy and reconstruction using a posterior mediastinal gastric tube. A bronchoscopy revealed a gastro-tracheobronchial fistula at the right main bronchus. Emergent surgery was indicated via a right posterolateral thoracotomy. The gastric tube was removed and a 1cm hole in the membranous portion of the right main bronchus was confirmed. The bronchial defect was covered with a pedicled 5th intercostal muscle graft. Postoperative course was uneventful and the esophagus was reconstructed with a jejunal flap 50 days after surgery. This technique appears to be appropriate for use in patients who have large tracheobronchial ruptures.

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EDUCATION

1989                      M.D., Hiroshima University, Hiroshima, Japan  
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WORKING EXPERIENCE

1989- 2002            Physician, Department of Surgery, Division of Frontier  
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2004- 2008            Assistant Professor, Department of Surgery, Division of  
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2008- present        Associate Professor, Department of Surgical oncology/ General  
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(Memo)



## Spine Damage Control Surgery : Rationale and Timing of Surgery

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Damage Control Surgery is first developed in abdominal trauma surgery in the late 1940-1950. It then developed and adopted in Orthopaedic field in 1990s, hence the termed Orthopaedic Damage Control Surgery. It included 3 stages of surgery, control haemorrhage and early temporary stabilisation of the fractures, resuscitation in ICU, and last stage definitive surgery. Orthopaedic Damage Control surgery itself is well accepted world wide for multitrauma patients compared to early total care surgery concept.

In Spine field, this concept is still new and also can be adopted. Controversies remains and consencus and agreement has not developed until this paper is written. The concept of spine damage control is proposed as early posterior stabilisation of the fracture in 24 hours post trauma, followed by late fusion after physiological condition of the patient is stabilised (more than 3 days post trauma).

Controversies remains, pros and contras between early spine fixation (<24 hours) and late spine surgery (>72 hours). This paper was intended to summarized and rationalised the concept of Spine Damage Control.

We reported 26 cases of Spine trauma that we operated in our center in the past 6 month. Average time between injury and operation is 6-8 days. We follow up the patient until 3-6 months time and the result is quite promising with increase Motoric function.

We concluded that, spine damage control is very reasonable and logical to perform, especially in our center due to lack of man power and facility.



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1999-2005	Brawijaya University, Medical Faculty, Malang, Indonesia
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2010-2011	Spine Consultant, University of Indonesia

WORKING EXPERIENCE

2011- present	Orthopaedic and Traumatology Staff, Spine Consultant, Sanglah Hospital, Denpasar, Bali
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(Memo)



## Another Role of Emergency Physician as a Teacher

Wikunda PATSINSIRI

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The Emergency Medicine was first development in USA since 1968 while our Emergency Medicine Training in Thailand has just officially started since 2004, almost 40 years after. However, this 3-year-curriculum of training was approved by Thai Medical Council as one specialty in 2003, 1 year before the training. The first generation of graduated emergency physician, especially who worked in the training center, have been working not only providing services to patients, but also teaching the residents, medical students and other health care personnel. The work pattern in emergency room makes the different to other departments, therefore it's not easy to set up all teaching activities. The variety of patients in sign, symptom and severity make emergency room such a good place for medical education. However, those challenges for teaching by several limitations in emergency department such as the need efficiency care in quick for critical patients, the high volume of patients in a waiting queue, or the loud noise environment, etc. Is there any way to decrease these problems as we consider the clinical teaching while working on floor in emergency room to be the most appropriate method?

## **Wikunda PATSINSIRI, M.D.**

Emergency physician

Emergency Department, Rajavithi Hospital,

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### EDUCATION

2003 M.D., Ramathibodi Hospital, Mahidol University School of Medicine,  
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### WORKING EXPERIENCE

2007-2012 Staff Emergency medicine, Rajavithi Hospital,  
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(Memo)



## **Saving More Lives in Sepsis The Golden Hours**

Malcolm MAHADEVAN

National University Hospital of Singapore, Singapore

A comprehensive review of the current evidence about resuscitation the septic patient in the emergency department. Also discussed will be the results of the pan Asean sepsis study called ATLAS. Finally controversies and further research and collaborative areas will be put forward for discussion.

**Malcolm MAHADEVAN, MBBS (SINGAPORE), FRCP ED,  
FRCS ED (A& E) FAMS**

Head, Associate Professor and Senior Consultant Emergency Physician  
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EDUCATION

1986- 1991            Graduated from the National University of Singapore  
1995                 Fellowship Royal College of Surgeons Edinburgh

WORKING EXPERIENCE

2004	Responsible for the setting up of the first Observation Unit (Extended Diagnostic and Treatment Unit or EDTU) in Singapore
2011-present	Associate Professor, Department of Surgery, Yong Loo Lin School of Medicine NUS Associate Professor Yong Loo Lin School of Medicine and Phase IV coordinator.
present	Head of Emergency Medicine Department National University Hospital.



(Memo)



## POSTER SESSION

### P-1

#### **A Rare Case of Multiple Coronary Aneurysms following Peri-stent Contrast Staining after Sirolimus-eluting Stents Implantation**

Teppei FUJITA, Jun-ichi FUNADA, Takeru IWATA

National Hospital Organization Ehime Hospital, Toon, Japan

Pathophysiological cause of peri-stent contrast staining (PSS) and coronary aneurysm (CAN) after drug-eluting stent (DES) implantation still remains unknown but is of great interest considering clinical outcome of patients after DES implantation. The case involves a 65-year-old woman showing multiple CANs after sirolimus-eluting stent (SES) implantation. She admitted to other hospital to treat acute coronary syndrome due to severe stenosis of RCA #2, and three SESs were implanted in June 2006. Follow-up coronary angiography in June 2007 revealed extravasation of contrast medium, PSS, in several lesions. These lesions developed to multiple CANs in coronary angiography performed August 2011. This case was treated by coronary artery bypass graft surgery since CAN after DES implantation has been reported to be associated with frequent adverse clinical event



## P-2

### Health Information Management Office in Kure Medical Center and Chugoku Cancer Center - Second Report

Fumiko MATSUFURU<sup>1)</sup>, Mika OZAKI<sup>1)</sup>, Keiko KAWAMOTO<sup>1)</sup>, Megumi KUBO<sup>1)</sup>, Chie NISHIMURA<sup>1)</sup>, Toshiharu KAWAMOTO<sup>1)</sup>, Kiyomi TANIYAMA<sup>2)</sup>, Takashi SUGITA<sup>3)</sup>, Wataru KAMIIKE<sup>4)</sup>

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The Japan Society of Health Information Management (HIM) was established to advance and develop the science of health information management and to deliver better medical care to the nation. The society has a history spanning over 30 years and by May, 2011, more than 22,500 members. Our HIM office consists of five registered officers, one nurse, and 15 medical assistants. We work daily for the diversity of medical information in the hospital.

Our hospital has 700 inpatient beds, a referral emergency center and a palliative care ward. Approximately 14,000 patients are discharged from the hospital per year. Our tasks as HIM officers are as follows:

- 1) Management of patients' medical records to support medical doctors.
- 2) Management of DPC (Diagnosis Procedure Combination) coding to support medical officers.
- 3) Registration and analysis of cancer patients.
- 4) Data analysis to improve the quality of medical care in the hospital.

With the dramatic changes in the healthcare system, the HIM officers, with their extensive knowledge of medicine and accounting, are key members in the advancement and development of medical care in the hospital.





### P-3

## Hospital Meals Services Policy in Kure Medical Center and Chugoku Cancer Center - Second Report

Kazumi TSUBOI<sup>1)</sup>, Mika INOUE<sup>1)</sup>, Yusuke MINAMOTO<sup>1)</sup>, Chisako USUKI<sup>1)</sup>, Tomomi OKAWACHIO<sup>1)</sup>, Yoko HAKUNO<sup>1)</sup>, Kiyomi TANIYAMA<sup>2)</sup>, Takashi SUGITA<sup>3)</sup>, and Wataru KAMIIKE<sup>4)</sup>

<sup>1)</sup>Nutritional Management Room, <sup>2)</sup>Institute for Clinical Research, and <sup>3)</sup>Vice-President and <sup>4)</sup>President, National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Kure, Japan

Our new way of cooking has been developed with the patient in mind. It maintains the freshness and flavor of food and has undoubtedly improved upon the quality of food served. Every patient enjoys hygienic, safe meals. We have six policies to assure patients' satisfaction – “3S3C”

#### ***Suitable Temperature:***

With the thermal insulation wagon, meals are delivered at suitable temperatures, both hot and chilled.

#### ***Easy Swallowing:***

Patients with neural disease or brain damage may have difficulty swallowing. Several recipes have been prepared for them.

#### ***Seasonal Recipes:***

New Year Holiday, Girls' Festival, Boys' Festival, Cherry Viewing, Christmas, and so on. Japanese traditional and major Western holidays are celebrated with special recipes for patients.

#### ***Meals for Chemotherapy Patients:***

As chemotherapy patients' bodies may be overly sensitive, we prepare meals for them that avoid seasonings, spices, and acidic foods.

#### ***Catering in Palliative Care Unit:***

Palliative care is an approach that improves the quality of life of patients with life-threatening illness. Special delivery of dessert using a wagon is served to patients once a month.

#### ***Continuous Improvement:***

To improve patients' satisfaction, we try to continuously improve food service in the hospital.

## P-4

### **Nurses as Members of the Disaster Medical Assistance Team during the Great East Japan Disaster of 2011 - Second Report**

Chieko SENJO<sup>1,2)</sup>, Kazue ISHII<sup>2)</sup>, Yasusuke MIYAGATANI<sup>1,3)</sup>, Kiyomi TANIYAMA<sup>4)</sup>, Takashi SUGITA<sup>5)</sup>, and Wataru KAMIIKE<sup>6)</sup>

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A Disaster Medical Assistance Team (DMAT) is a trained, mobile, self-contained medical team that can provide medical assistance in a devastated area within 48 to 72 hours of a disaster. A DMAT consists of physicians, physician assistants, nurses, pharmacists, respiratory therapists, paramedics, Emergency Medical Technicians, and a variety of other health and logistical personnel. Presented below is an account of the great East Japan Disaster 2011.

At 14:46, on 11 March 2011 a 9.0 magnitude earthquake struck the northeast coast of Honshu, Japan.

The Ministry of Health, Labour, and Welfare called for DMATs all over Japan, and two DMATs of our hospital immediately took action.

The coordination of DMATs in Japan was managed by the headquarter (HQ) of DMATs in Fukushima prefecture. One of our missions on the first day was to take a survey of the radioactive contamination of evacuated citizens at some public spaces in Nihonmatsu city, 60km from the damaged nuclear power plant. Emergency transportation of seriously injured patients to the other medical institute was also included in our mission. On the second day, we supported the HQ.

DMAT nurses must be extraordinarily responsive to the conditions of people, circumstances and nature. They have to attend to the mental condition of survivors. Through this activity, we felt strongly the importance of staying with the survivors and their families. In addition to their customary duties, nurses in DMAT must meet the needs of disaster survivors.

## P-5

## Multi-drug-resistant Bacilli Detected in the Emergency Center of the Kure Medical Center and Chugoku Cancer Center - Second Report

Takeshi MORIMITSU<sup>1,2)</sup>, Sachiko TAMAKI<sup>2)</sup>, Yasusuke MIYAGATANI<sup>1,3)</sup>, Kiyomi TANIYAMA<sup>4)</sup>, Takashi SUGITA<sup>5)</sup>, and Wataru KAMIIKE<sup>6)</sup>

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**[Objective]** Recently, multi-drug-resistant Bacilli (MDRB) have been appearing and disseminating among major medical institutes all over the world. Gram-negative MDRB is appearing in Japan, and other novel MDRBs are being reported worldwide. We surveyed the MDRB detected in the Emergency Center of the Kure Medical Center and Chugoku Cancer Center.

**[Materials and Methods]** A total of 13,285 samples consisting of 3,882 sputa, 3,636 nasopharyngeal samples, 2,391 blood samples, and 3,377 other samples were taken from 6,489 patients between April 2006 and October 2011, and bacteriological data were examined, retrospectively.

**[Results]** MRSA in 793, ESBL-producing *K. pneumonia* in 7, *E. coli* in 15, BLNAR in 4, PISP in 9, and *P. aeruginosa* resistant against two antibiotics in 1 sample were found. MRSA could be detected in 150 (83.8%) of 179 samples with *S. aureus* infection in 2006, and it decreased to 70.6% (101/143) in 2011. However, the detection rate of ESBL-producing *E. coli* increased from 2.9% (1/34) in 2006, to 9.9% (7/71) in 2011 among all *E. coli* detected.

**[Discussion]** We examine the presence of MRSA intensively and its detection rate is always high. The decreasing tendency of MRSA detection rate overall may indicate that our current manuals for drug usage and protection of MRSA are effective to prevent additional dissemination of MRSA. Our current practices are good enough to prevent the dissemination of BLNAR, PISI, and ESBL-producing *K. pneumonia* as well, since no increase of detection rates of these pathogens were found. Although ESBL-producing *E. coli* showed an increasing tendency in detection rate, they came from outside of the hospital, not by parallel infection in the hospital. Despite the good control of MDRB, close monitoring of MDRB detected is required.

## **P-6**

### **Comparison of TGF- $\beta$ Level in Femoral Fracture in Mice Injected with Leptin Peripherally**

Roger LEO, Siki KAWIYANA

Udayana University Sanglah General Hospital, Denpasar, Bali, Indonesia

Transforming Growth Factor beta (TGF- $\beta$ ) is a protein that controls proliferation, cellular differentiation in most cells. TGF- $\beta$  have widely recognized roles in bone formation during development and exhibit versatile functions in the body. TGF- $\beta$  signaling promotes osteoprogenitor proliferation, early differentiation and commitment to the osteoblastic lineage.

Leptin, a 16-kDa fat derived cytokine like hormone is right now recognized to have effect on Bone Mass through Sympathetic Nervous System (SNS). In one study, leptin deficient mice showed high bone mass due to increase bone formation. This is an interesting finding, that apparently leptin has dual effect, centrally through Hypothalamus and peripherally. Leptin given centrally has a potent inhibitor of bone formation, while it given peripherally will increase the bone strength in mice and increase proliferation of osteoblast, showed by increase diameter and volume on callus in one study. The direct effect of Leptin in TGF- $\beta$  level has not been researched, that is why writer is interest to study this connection.

Understanding the nature of leptin might shed a light for anabolic treatment for Osteoporosis in the future. Our Hypothesis is that TGF- $\beta$  level will increase in mice, following injection leptin peripherally following femoral fracture.

36 samples were included in this study. Divided into 2 groups, study group (17 samples) and control group (19 samples). TGF- $\beta$  level in the study group were found significantly higher than TGF- $\beta$  in control group ( $p < 0.001$ ).

TGF- $\beta$  is showed increase in our study after Leptin injection peripherally in the femoral fracture in mice. This finding showed increase proliferation of osteoblast. This finding could shed a light in future anabolic treatment for Osteoporosis.

**P-7****Characteristic T-Score of the Hip in Elderly Women in Bali**

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Osteoporosis is one of the most common cause of disability, and there to be expected more than half of women population will sustain osteoporotic fracture in their lifetime. In white women, at the age of fifty, the risk of sustaining hip fracture was estimated 16%, this number is greater than the risk of breast cancer (11%) itself.

The gold standard to evaluate for Osteoporosis is Bone Mineral Densitometry (BMD) that checked using DEXA (Dual X-Ray Absorptiometry) Although until now, there is still no agreement which T-Score indicate earliest osteoporosis and could predict future fracture. The common site to be checked is vertebral especially Lumbar area and Hip area. It is postulated that the hip will sustain more risk of fracture, especially in the neck region.

Three hundred sixty one elderly women were included in our study, and the BMD was checked using standard DEXA tools. T-Score of the hip divided again into T-Score Total Femur, T-Score neck, T-Score Wards, T-Score Trochanter. The purpose of this study is to know, which T-Score showed the lowest score to determine the earliest Osteoporotic region.

From this study, we found that T-Score of the Wards is the lowest (-1.8939) followed by T-Score of the Neck (-1.3726), T-Score of Total Femur (-1.2731) and T-Score of the Trochanter (-1.1208).

Although Neck of the Femur sustained more risk to fracture due to its nature as weight bearing point, it is the Wards that showed earlier sign of Osteoporosis in our study.



## P-8

### **Cervical Fracture with Improving Motoric Function Post Stabilization Using Reconstruction plate 3.5 mm - A Case Report**

Erwin SASPRADITYA

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Case report, 61-year-old with neck pain, felt down from a tree, 4 metres high. From physical examination 3 hours post trauma, there was severe neck pain with limitation of the neck motion, sensory level at C5 bilaterally, without any motion at the upper extremities and minimal motion in the lower extremities and also problem on passing urine. Plain lateral cervical spine x-ray didn't show any abnormality. From CT scan, focusing on C-5, revealed fracture line on vertebral body with minimal canal compromise. After 3 days being hospitalized, patient underwent surgery, posterior stabilization-decompression-fusion. We used reconstruction plate 3.5 mm because our hospital did not provide pedicle screw for cervical fracture. Post surgery, we directly used Philadelphia collar brace for immobilization. We do follow up of this patient, after three months, founded in X-ray result, there was an avulsion of the plate, but the evaluation of the patient's motoric, showed some progresses. At first we founded progress of the motion in the lower extremities and the upper extremities, followed by released of urinary retention. Three months after surgery, he could do some daily activities by himself, including eating, combing his hair, even started to walk independently, although he still had some residual motoric disturbance on his hands and fingers especially in doing fine finger movements.



## P-9

### Psychopathological Consequences in Children at 3 Years after Tsunami Disaster in Thailand

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**Background:** At 1 year after the Tsunami disaster, 30% of students in two high risk schools at Takuapa district of Phang Nga Province still suffered from post traumatic stress disorder (PTSD). The number of patients was sharply declined after 18 months. The psychological consequences in children who diagnosed PTSD after the event were reinvestigated again at 3 years, as there were reports of significant comorbidity and continuing of subsyndromal post traumatic stress symptoms in children suffered from other disasters.

**Objective:** To assess psychological outcomes and factors contributed at 3-year follow up time in children diagnosed PTSD at 1-year after the Tsunami disaster.

**Material and Method:** There were 45 students who were diagnosed PTSD at 1-year after the disaster. At 3-year follow up time, clinical interview for psychiatric diagnosis was done by psychiatrists.

**Results:** 11.1% of students who had been diagnosed as PTSD at 1-year after Tsunami still had chronic PTSD and 15% had either depressive disorder or anxiety disorder. 25% of students completely recovered from mental disorders. Nearly 50% of students were categorized in partial remission or subsyndromal PTSD group. Factors which influenced long-term outcomes were prior history of trauma and severe physical injury from the disaster.

**Conclusion:** Although the point prevalence of PTSD in children affected by Tsunami was declined overtime, a significant number of students still suffer from post traumatic stress symptoms, depressive disorder or anxiety disorder which need psychological intervention.





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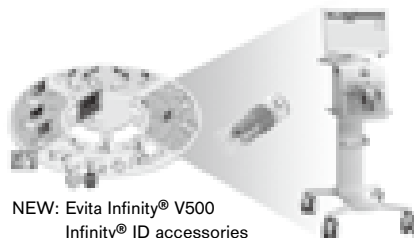
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# 先端技術を医療へ、健康増進へ

日本光電は、1951年の創業以来、「エレクトロニクスで病魔に挑戦」をモットーに、医用電子機器のトップメーカーとして、数々の医療機器を世界中の医療現場へ提供してきました。

その活躍の場は、臨床医療の場をはじめ、救急医療、在宅医療・介護、健康増進の場へと広がっています。

高齢社会の訪れ、疾病構造の変化など、日本光電は時代の変化をとらえながら、人類共通の願いである「病魔の克服、健康の増進」に挑戦し続けていきます。

- 東証一部上場企業（創業1951年）
- 国内120カ所の営業拠点と60カ所にのぼるサービスセンタ
- 世界100カ国以上に各種医療機器を提供

## 【取扱品目】

脳波計、筋電図・誘発電位検査装置、心電計、ポリグラフ、ベッドサイドモニタ、医用テレメータ  
SpO<sub>2</sub>/CO<sub>2</sub>モニタ、血球計数器、除細動器、AED、各種救急機器、人工呼吸器、呼吸検査装置  
心肺機能検査装置、超音波診断装置、サーモグラフィ装置、画像診断装置、診断情報システム  
臨床情報システム、ペースメーカー、ICD、各種カテーテル、研究機器、ME用品、開業支援 他



## 日本光電

日本光電中四国株式会社  
宇部営業所 ☎0836(21)9781  
徳山営業所 ☎0834(22)0356

<http://www.nihonkohden.co.jp/>

会社概要、製品情報等は、弊社ホームページをご覧ください。

# 病理スライドを短時間で 高精細デジタルデータ (バーチャルスライド) に変換!



NanoZoomer 2.0-HT



NanoZoomer 2.0-RS

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特長

①

**ガラススライド1枚を約100秒で高速スキャン**

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スキャンエリア20 mm×20 mm、20倍モードで約100秒。

特長

②

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**浜松ホトニクス株式会社** WEB SITE [jp.hamamatsu.com](http://jp.hamamatsu.com)

□システム営業推進部 〒431-3196 浜松市東区常光町812 TEL (053)431-0150 FAX (053)433-8031

” 詳細情報は、Webから ”

NanoZoomer

検索



最新カタログをPDFデータで掲載しています。  
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Physio<sup>®</sup>140 Injection 薬価基準収載

\*：注意—医師等の処方せんにより使用すること

Na<sup>+</sup>  
140mEq/L

Mg<sup>2+</sup>  
2mEq/L

HCO<sub>3</sub><sup>-</sup>  
28mEq/L

Glucose  
1%

## 【禁 忌(次の患者には投与しないこと)】

高マグネシウム血症、甲状腺機能低下症の患者[本剤の電解質組成により高マグネシウム血症が悪化するおそれがある。]

## 【効能・効果】

循環血液量及び組織間液の減少時における細胞外液の補給・補正、代謝性アシドーシスの補正

## 【効能・効果に関連する使用上の注意】

本剤はエネルギー補給を目的とした薬剤ではないため、エネルギー補給を目的に使用しないこと。

## 【用法・用量】

通常、成人1回500～1000mLを点滴静注する。投与速度は通常成人1時間あたり15mL/kg体重以下とする。

なお、年齢、症状、体重により適宜増減する。

## 【用法・用量に関連する使用上の注意】

本剤はエネルギー補給を目的とした薬剤ではないため、本剤の投与により患者の循環動態等が安定した場合には、患者の状態を考慮の上、漫然と投与することなく本剤の投与を中止し、必要に応じ維持輸液や高カロリー輸液等の投与に切り替えること。

## 【使用上の注意】—抜粋—

### 1.慎重投与(次の患者には慎重に投与すること)

- (1) 腎疾患に基づく腎不全のある患者[水分、電解質の調節機能が低下しているので、慎重に投与すること。]
- (2) 心不全のある患者[循環血液量を増すことから心臓に負担をかけ、症状が悪化するおそれがある。]
- (3) 高張性脱水症の患者[本症では水分補給が必要であり、電解質を含む本剤の投与により症状が悪化するおそれがある。]
- (4) 閉塞性尿路疾患により尿量が減少している患者[水分、電解質の過負荷となり、症状が悪化するおそれがある。]
- (5) 糖尿病の患者[ブドウ糖の組織への移行が抑制されているので、高血糖を生じ症状が悪化するおそれがある。]

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\*：注意—医師等の処方せんにより使用すること

## 【禁 忌(次の患者には投与しないこと)】

高マグネシウム血症、甲状腺機能低下症の患者[本剤の電解質組成により高マグネシウム血症が悪化、又は起こすおそれがある。]

## 【効能・効果】

循環血液量及び組織間液の減少時における細胞外液の補給・補正、代謝性アシドーシスの補正

## 【用法・用量】

通常、成人1回500～1000mLを点滴静注する。投与速度は通常成人1時間あたり10mL/kg体重以下とする。

なお、年齢、症状、体重により適宜増減する。

## 【使用上の注意】—抜粋—

### 1.慎重投与(次の患者には慎重に投与すること)

- (1) 腎不全のある患者[水分、電解質の過剰投与に陥りやすく、症状が悪化するおそれがある。]
- (2) 心不全のある患者[循環血液量を増すことから心臓に負担をかけ、症状が悪化するおそれがある。]
- (3) 高張性脱水症の患者[本症では水分補給が必要であり、電解質を含む本剤の投与により症状が悪化するおそれがある。]
- (4) 閉塞性尿路疾患により尿量が減少している患者[水分、電解質の過負荷となり、症状が悪化するおそれがある。]

◇その他の使用上の注意等は、製品添付文書をご参照ください。



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資料請求先

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使用目的	摘出された乳癌又は大腸癌所属リンパ節中のサイトケラチン19(CK19)mRNAの検出(乳癌又は大腸癌におけるリンパ節転移診断の補助に用いる)。

※大腸癌については保険適用されておりません。

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OSNA



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詳細は [www.tuv.com](http://www.tuv.com) の ID 0910589004 を参照。  
Note: Scope of sites and activities vary depending on the standard.  
For details, refer to the ID 0910589004 at [www.tuv.com](http://www.tuv.com)



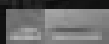
# 株式会社ジェネティックラボ



ジェネティックラボは、「診断から治療まで」を目指した  
北海道発のバイオビジネスを展開しています。  
最先端のバイオマーカー解析技術による創薬の支援サービスや、  
「個の医療」「PGx」を推進する各種解析サービスを提供しています。

## *in vitro Biomarker Analysis*

### DNA マイクロアレイ



Affymetrix GeneChip(R)  
mRNA/microRNA  
Expression  
SNPs Analysis  
CNVs Analysis  
Data Mining

網羅的遺伝子発現解析  
SNPs/CNVs探索

### High-throughput qPCR



Target mRNA/microRNA Quantification  
Target SNP Analysis  
Molecular Haplotyping

mRNA/microRNA発現定量解析  
SNPs/CNVsバリデーション  
分子ハプロタイピング

### マルチプレックス サスペンションアレイ



Luminex(R)  
Multi-Analyte Profiling assay

多項目アナライズ解析  
サイトカイン/ケモカインパネル  
MAPKシグナリングパネル  
TCRシグナリングパネル  
骨代謝因子パネル  
内分泌因子パネル

## *in situ Biomarker Analysis*

### 病理標本解析

Immunohistochemistry  
Tissue Microarray  
Cell Block Array  
Histopathology Research Diagnosis

組織病理学的診断  
免疫組織化学染色  
Ariol si-50による自動解析  
-胃癌・乳癌のHER2解析、MIB1-Indexなど  
組織アレイ・細胞アレイ作製

### Fluorescent in situ hybridization (FISH)

DNA-FISH  
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多重免疫組織蛍光染色による  
発現タンパク質の定量評価  
組織アレイのバイオマーカー評価解析

### 株式会社ジェネティックラボ

〒060-0009  
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札幌ITフロントビル3F  
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28-196, North 9-West 15, Chuo-ku, Sapporo,  
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TEL +81-11-644-7301 / FAX +81-11-644-7611

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# 期待が、確信へ。 そして、真のパートナーへ。



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## 【禁忌(次の患者には投与しないこと)】

- (1) 本剤の成分に対し過敏症の既往歴のある患者
- (2) 重症ケトーシス、糖尿病性昏睡又は前昏睡、1型糖尿病の患者〔輸液及びインスリンによる速やかな高血糖の是正が必須となるので本剤を投与すべきでない。〕
- (3) 血液透析又は腹膜透析を要する患者を含む重度腎機能障害のある患者〔本剤の血中濃度が上昇する。〕〔薬物動態〕の項参照〕
- (4) 重症感染症、手術前後、重篤な外傷のある患者〔インスリン注射による血糖管理が望まれるので本剤の投与は適さない。〕

## 【効能・効果】

### 2型糖尿病

ただし、下記のいずれかの治療で十分な効果が得られない場合に限る

- ① 食事療法、運動療法のみ
- ② 食事療法、運動療法に加えてスルホニル尿素剤を使用
- ③ 食事療法、運動療法に加えてチアゾリジン系薬剤を使用
- ④ 食事療法、運動療法に加えてビグアナイド系薬剤を使用
- ⑤ 食事療法、運動療法に加えてα-グルコシダーゼ阻害剤を使用
- ⑥ 食事療法、運動療法に加えてインスリン製剤を使用

## 【用法・用量】

通常、成人にはシタグリブチンとして50mgを1日1回経口投与する。なお、効果不十分な場合には、経過を十分に観察しながら100mg1日1回まで増量することができる。

### <用法・用量に関連する使用上の注意>

本剤は主に腎臓で排泄されるため、中等度腎機能障害のある患者では、下表を目安に用量調節すること。〔慎重投与〕及び〔薬物動態〕の項参照

腎機能障害	クレアチニンクリアランス(mL/min) 血清クレアチニン値(mg/dL)*	通常投与量	最大投与量
中等度	30<CrCl<50	25mg 1日1回	50mg 1日1回
	男性: 1.5<Cr<2.5		
	女性: 1.3<Cr<2.0		

\*クレアチニンクリアランスに概ね相当する値

## 【使用上の注意】

### 1. 慎重投与(次の患者には慎重に投与すること)

- (1) 中等度腎機能障害のある患者〔用法・用量に関連する使用上の注意〕及び〔薬物動態〕の項参照
- (2) 他の糖尿病用薬(特に、インスリン製剤又はスルホニル尿素剤)を投与中の患者(併用により低血糖症を起こすことがある。〔重要な基本的注意〕、〔相互作用〕、〔重大な副作用〕及び〔臨床成績〕の項参照)
- (3) 次に掲げる低血糖を起こすおそれのある患者又は状態
  - 1) 脳下垂体機能不全又は副腎機能不全
  - 2) 栄養不良状態、飢餓状態、不規則な食事摂取、食事摂取量の不足又は衰弱状態
  - 3) 激しい筋肉運動
  - 4) 過度のアルコール摂取者
  - 5) 高齢者

### 2. 重要な基本的注意

- (1) 本剤の使用にあたっては、患者に対し低血糖症状及びその対処方法について十分説明すること。特に、インスリン製剤又はスルホニル尿素剤と併用する場合、低血糖のリスクが増加する。インスリン製剤又はスルホニル尿素剤による低血糖のリスクを軽減するため、これらの薬剤と併用する場合には、インスリン製剤又はスルホニル尿素剤の減量を検討すること。〔慎重投与〕、〔相互作用〕、〔重大な副作用〕及び〔臨床成績〕の項参照
- (2) 糖尿病の診断が確立した患者に対してのみ適用を考慮すること。糖尿病以外にも耐糖能異常・尿糖陽性等、糖尿病類似の症状(腎性糖尿、甲状腺機能異常等)を有する疾患があることに留意すること。
- (3) 本剤の適用はあらかじめ糖尿病治療の基本である食事療法、運動療法を十分に行ったうえで効果が不十分な場合に限り考慮すること。
- (4) 本剤投与中は、血糖を定期的に検査するとともに、経過を十分に観察し、常に投与継続の必要性について注意を払うこと。本剤を3ヵ月投与しても食後血糖に対する効果が不十分な場合、より適切と考えられる治療への変更を考慮すること。
- (5) 投与の継続中に、投与の必要がなくなる場合や、減量する必要がある場合があり、また、患者の不養生、感染症の合併等により効果がなくなったり、不十分となる場合があるため、食事摂取量、血糖値、感染症の有無等に留意の上、常に投与継続の可否、投与量、薬剤の選択等に注意すること。
- (6) 腎機能障害のある患者では本剤の排泄が遅延し血中濃度が上昇するおそれがあるため、腎機能を定期的に検査することが望ましい。〔用法・用量に関連する使用上の注意〕、〔慎重投与〕及び〔薬物動態〕の項参照
- (7) 急性肺炎があらわれることがあるので、持続的な激しい腹痛、嘔吐等の初期症状があらわれた場合には、速やかに医師の診察を受けるよう患者に指導すること。〔重大な副作用〕、〔その他の副作用〕の項参照
- (8) インスリン依存状態の2型糖尿病患者に対する本剤とインスリン製剤との併用投与の有効性及び安全性は検討されていない。したがって、患者のインスリン依存状態について確認し、本剤とインスリン製剤との併用投与の可否を判断すること。
- (9) 速効型インスリン分泌促進薬、GLP-1アナログ製剤との併用についての有効性及び安全性は確立されていない。

### 3. 相互作用

本剤は主に腎臓から未変化体として排泄され、その排泄には能動的な尿細管分泌の関与が推察される。〔薬物動態〕の項参照

### 【併用注意】(併用に注意すること)

糖尿病用薬: インスリン製剤、スルホニル尿素剤、チアゾリジン系薬剤、ビグアナイド系薬剤、α-グルコシダーゼ阻害剤、速効型インスリン分泌促進薬<sup>※1)</sup>、GLP-1アナログ製剤<sup>※2)</sup>等/シコキシ<sup>※3)</sup>/血糖降下作用を増強する薬剤: β-遮断薬、サリチル酸剤、モノアミン酸化酵素阻害剤等/血糖降下作用を減弱する薬剤: エビネフリン、副腎皮質ホルモン、甲状腺ホルモン等

注) 〔重要な基本的注意〕の項参照

### 4. 副作用

#### 臨床試験(治験)

国内で実施された臨床試験において、1,581例中181例(11.4%)の副作用が認められた。主なものは低血糖症63例(4.0%)、便秘17例(1.1%)、空腹9例(0.6%)、腹部膨満8例(0.5%)等であった。また、関連の否定できない臨床検査値の異常変動は1,579例中62例(3.9%)に認められ、主なものはALT(GPT)増加20例/1,579例(1.3%)、AST(GOT)増加12例/1,579例(0.8%)、γ-GTP増加12例/1,579例(0.8%)等であった。

#### (1) 重大な副作用

- 1) アナフィラキシー反応(頻度不明)<sup>※1)</sup>: アナフィラキシー反応があらわれることがあるので、観察を十分に行い、異常が認められた場合には投与を中止し、適切な処置を行うこと。〔禁忌〕の項参照
- 2) 皮膚粘膜眼症候群(Stevens-Johnson症候群)、剥脱性皮膚炎(いずれも頻度不明)<sup>※2)</sup>: 皮膚粘膜眼症候群(Stevens-Johnson症候群)、剥脱性皮膚炎があらわれることがあるので、このような症状があらわれた場合には投与を中止し、適切な処置を行うこと。〔禁忌〕の項参照
- 3) 低血糖症: 経口糖尿病用薬との併用で低血糖症(グリメピリド併用時5.3%、ピオグリタゾン併用時0.8%、メトホルミン併用時0.7%、ボグリボース併用時0.8%)があらわれることがある。また、インスリン製剤併用時に低血糖症(17.4%)が多くみられている。特に、インスリン製剤又はスルホニル尿素剤との併用で重篤な低血糖症状があらわれ、意識消失を来す例も報告されていることから、これらの薬剤と併用する場合には、インスリン製剤又はスルホニル尿素剤の減量を検討すること。また、他の糖尿病用薬を併用しない場合でも低血糖症(1.0%)が報告されている。低血糖症状が認められた場合には、糖質を含む食品を摂取するなど適切な処置を行うこと。ただし、α-グルコシダーゼ阻害剤との併用により低血糖症状が認められた場合にはブドウ糖を投与すること。〔慎重投与〕、〔重要な基本的注意〕、〔相互作用〕及び〔臨床成績〕の項参照
- 4) 肝機能障害、黄疸(いずれも頻度不明)<sup>※3)</sup>: AST(GOT)、ALT(GPT)等の著しい上昇を伴う肝機能障害、黄疸があらわれることがあるので、観察を十分に行い、異常が認められた場合には、投与を中止するなど適切な処置を行うこと。
- 5) 急性腎不全(頻度不明)<sup>※4)</sup>: 急性腎不全があらわれることがあるので、観察を十分に行い、異常が認められた場合には、投与を中止するなど適切な処置を行うこと。
- 6) 急性肺炎(頻度不明)<sup>※5)</sup>: 急性肺炎があらわれることがあるので、観察を十分に行い、持続的な激しい腹痛、嘔吐等の異常が認められた場合には投与を中止し、適切な処置を行うこと。海外の自発報告においては、出血性肺炎又は壊死性肺炎も報告されている。〔重要な基本的注意〕の項参照
- 7) 間質性肺炎(頻度不明)<sup>※6)</sup>: 間質性肺炎があらわれることがあるので、発熱、咳嗽、呼吸困難、肺音の異常(捻髪音)等が認められた場合には、速やかに胸部X線、胸部CT、血清マーカー等の検査を実施すること。間質性肺炎が疑われた場合には投与を中止し、副腎皮質ホルモン剤の投与等の適切な処置を行うこと。

注) 自発報告あるいは海外において認められている。

2011年9月作成(第11版)

その他の使用上の注意等につきましては、製品添付文書をご参照ください。  
禁忌を含む使用上の注意の改訂には十分ご留意ください。

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● 1997年12月，在《中国环境报》上，刊登了“中国环境状况令人堪忧”的标题，并附有“中国环境状况令人堪忧”的副标题。文章指出，中国环境状况令人堪忧，主要表现在以下几个方面：一是环境污染严重，二是生态破坏严重，三是资源短缺严重，四是环境管理不善。文章还指出，中国环境状况令人堪忧，主要表现在以下几个方面：一是环境污染严重，二是生态破坏严重，三是资源短缺严重，四是环境管理不善。

6. 附註事項

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### 【警告】

本剤の耐性菌の発現を防ぐため、「用法・用量に関連する使用上の注意」の項を熟読の上、適正使用に努めること。

【禁忌(次の患者には投与しないこと)】  
本剤の成分に対し過敏症の既往歴のある患者

### 【効能・効果】

- <適応菌種>本剤に感性的メチシリン耐性黄色ブドウ球菌(MRSA)  
<適応症>敗血症、深在性皮膚感染症、慢性膿皮症、外傷・熱傷及び手術創等の二次感染、肺炎
- <適応菌種>本剤に感性的のバンコマイシン耐性エンテロкокカス・フェシウム  
<適応症>各種感染症

### 【用法・用量】

〈ザイボックス注射液600mg〉  
通常、成人にはリネゾリドとして1日1200mgを2回に分け、1回600mgを12時間ごとに、それぞれ30分～2時間かけて点滴静注する。  
〈ザイボックス錠600mg〉  
通常、成人にはリネゾリドとして1日1200mgを2回に分け、1回600mgを12時間ごとに経口投与する。

### 【用法・用量に関連する使用上の注意】

- 本剤の使用にあたっては、耐性菌の発現等を防ぐため、次のことに注意すること。  
(1)感染症の治療に十分な知識と経験を持つ医師又はその指導のもとで行うこと。  
(2)原則として他の抗菌薬及び本剤に対する感受性(耐性)を確認すること。〔薬効薬理〕1. (2)の項参照
- 投与期間は、感染部位、重症度、患者の症状等を考慮し、適切な時期に、本剤の継続投与が必要と判定し、疾病の治療に必要な最小限の期間の投与にとどめること。
- 点滴静注、経口投与及び切り替え投与のいずれの投与方法においても、28日を超える投与の安全性及び有効性は検討されていない。したがって、原則として本剤の投与は28日を超えないことが望ましい。なお、本剤を28日を超えて投与した場合、視神経障害があらわれることがある。〔重要な基本的注意〕(4)の項参照
- 本剤はグラム陽性菌に対してのみ抗菌活性を有する。したがって、グラム陰性菌等を含む混合感染と診断された場合、又は混合感染が疑われる場合は適切な薬剤を併用して治療を行うこと。  
(ザイボックス注射液600mg)  
4. 本剤は添加物としてブドウ糖5% (1バグ300mL中、15.072g) を含有する。点滴静注する場合の速度は、10mL/kg/hr (ブドウ糖として0.5g/kg/hr) 以下とすること。
5. 注射剤から錠剤への切り替え  
注射剤からリネゾリドの投与を開始した患者において、経口投与可能であると医師が判断した場合は、同じ用量の錠剤に切り替えることができる。  
(ザイボックス錠600mg)  
4. 注射剤から錠剤への切り替え  
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### 【使用上の注意】(抜粋)

- 慎重投与(次の患者には慎重に投与すること)  
(1)投与前に貧血、白血球減少症、汎血球減少症、血小板減少症等の骨髄抑制が確認されている患者、骨髄抑制作用を有する薬剤との併用が必要な患者、感染症のため長期にわたり他の抗菌薬を本剤の投与前に投薬されていた、あるいは、本剤と併用して投薬される患者、14日を超えて本剤を投与される可能性のある患者  
〔重要な基本的注意〕(1)の項参照  
(2)高度な腎機能障害のある患者〔薬物動態〕1. (3)の項参照  
(3)体重40kg未満の患者〔臨床試験においての使用経験が限られている。〕  
(4)授乳婦〔妊婦、産婦、授乳婦等への投与〕(2)の項参照

### 2. 重要な基本的注意

- 本剤の投与にあたっては、血液検査を定期的(週1回を目処)に実施すること。特に投与前に貧血、白血球減少症、汎血球減少症、血小板減少症等の骨髄抑制が確認されている患者、骨髄抑制作用を有する薬剤との併用が必要な患者、感染症のため長期にわたり他の抗菌薬を本剤の投与前に投薬されていた、あるいは、本剤と併用して投薬される患者、14日を超えて本剤を投与される可能性のある患者には血液検査値に注意すること。貧血、白血球減少症、汎血球減少症、血小板減少症等の骨髄抑制の傾向や悪化が認められた場合には、本剤の投与中止等の適切な処置を行うこと。〔副作用〕(1)の1)の項参照
- 本剤の投与により、低ナトリウム血症があらわれることがあるので、定期的に血清ナトリウム値の測定を行い、異常が認められた場合には、投与を中止するなど適切な処置を行うこと。
- 本剤の投与により、まれに発熱、腹痛、白血球増多、粘液・血液便を伴う激症下痢を主症状とする重篤な大腸炎、内視鏡検査により偽膜斑等の形成をみる偽膜性大腸炎があらわれることがある。発症後直ちに投与を中止し、十分な観察を行い、必要に応じて、特に高齢者及び衰弱患者では予後不良となる可能性がある。したがって本剤を投与する場合には、投与患者に対し、投与中又は投与後2～3週間までに腹痛、頻回な下痢があらわれた場合、直ちに医師に通知するよう注意すること。また、偽膜性大腸炎の症状が重篤な場合には適切な処置を行うこと。
- 本剤を28日を超えて投与した場合、視神経障害があらわれることがあり、さらに視力喪失に進行する可能性がある。観察を十分に行うこと。また、視力低下、色覚異常、霧視、視野欠損のような自覚症状があらわれた場合、直ちに医師に連絡するように患者を指導すること。これらの症状があらわれた場合には、投与を中止するなど適切な処置を行うこと。〔副作用〕(1)の2)の項参照
- 本剤と選択的セロトニン再取り込み阻害剤(SSRI)を含むセロトニン作動薬との併用によるセロトニン症候群がまれに報告されている。本剤とセロトニン作動薬との併用投与にあたっては、セロトニン症候群の徴候及び症状(錯乱、せん妄、情緒不安、振戦、潮紅、発汗、超高熱)に十分注意すること。〔相互作用〕の項参照

### 〈ザイボックス注射液600mg〉

- 本剤によるショック、アナフィラキシー様症状の発生を確実に予知できる方法がないので、次の措置をとること。  
(1)事前に既往歴等について十分な問診を行うこと。なお、抗生物質等によるアレルギー歴は必ず確認すること。
- 投与に際しては、必ずショック等に対する救急処置のとれる準備をしておくこと。
- 投与開始から投与終了後まで、患者を安静の状態に保たせ、十分な観察を行うこと。特に、投与開始直後は注意深く観察すること。
- 抗菌薬の使用は、非感受性菌の過剰増殖を促進する可能性がある。治療中に重複感染が現れた場合には、適切な処置を行うこと。
- 〈ザイボックス錠600mg〉  
(6) 抗菌薬の使用は、非感受性菌の過剰増殖を促進する可能性がある。治療中に重複感染が現れた場合には、適切な処置を行うこと。

### 3. 相互作用 併用注意(併用に注意すること)

薬剤名等
モノアミン酸化酵素(MAO)阻害剤(塩酸セザリジン)、アドレナリン作動薬(ドパミン塩酸塩、アレナリン、フェニルプロパノールアミン等)、セロトニン作動薬、リファンピジン、チラミンを多く含有する飲食物(チーズ、ビール、赤ワイン等)

注:チラミン含有量:チーズ:0～5.3mg/10g、ビール:1.1mg/100mL、赤ワイン:0～2.5mg/100mL

### 4. 副作用

国内で実施された1件の第Ⅲ相対照薬比較試験(注射剤及び錠剤を用いた試験)における安全性評価対象例100例中、副作用の発現症例は55例(55.0%)であった。その主なものは、血小板減少症19例(19.0%)、貧血13例(13.0%)、下痢10例(10.0%)、白血球減少症7例(7.0%)及び低ナトリウム血症7例(7.0%)等であった。(承認時までの調査の集計) 外国で実施された8件の第Ⅲ相対照薬比較試験(注射剤及び錠剤を用いた試験)における安全性評価対象例2,367例中、副作用の発現症例は489例(20.7%)であった。その主なものは、下痢101例(4.3%)、悪心70例(3.0%)、頭痛45例(1.9%)、嘔吐25例(1.1%)、味覚錯乱24例(1.0%)及び嘔吐24例(1.0%)等であった。(承認時までの調査の集計)

#### (1) 重大な副作用

- 可逆的な貧血(13.0%)・白血球減少症(7.0%)・汎血球減少症(3.0%)・血小板減少症(19.0%)等の骨髄抑制:投与中止によって回復する貧血・白血球減少症・汎血球減少症・血小板減少症等の骨髄抑制があらわれることがあるので、血液検査を定期的に実施するなど観察を十分にを行い、異常が認められた場合には、投与を中止するなど適切な処置を行うこと。なお、本剤の臨床試験において、14日を超えて本剤を投与した場合に血小板減少症の発現頻度が高くなる傾向が認められている。
- 視神経症(頻度不明):視神経症があらわれることがあるので、異常が認められた場合には、投与を中止するなど適切な処置を行うこと。
- ショック(頻度不明)、アナフィラキシー様症状(頻度不明):ショック、アナフィラキシー様症状があらわれることがあるので、異常が認められた場合には、投与を中止するなど適切な処置を行うこと。
- 間質性肺炎(1.0%):間質性肺炎があらわれることがあるので、異常が認められた場合には、投与を中止するなど適切な処置を行うこと。
- 腎不全(2.0%):クレアチニン上昇、BUN上昇等を伴う腎不全があらわれることがあるので、観察を十分にを行い、異常が認められた場合には、投与を中止するなど適切な処置を行うこと。
- 低ナトリウム血症(頻度不明):意識障害、嘔気、嘔吐、食欲不振等を伴う低ナトリウム血症があらわれることがあるので、異常が認められた場合には、投与を中止するなど適切な処置を行うこと。

■その他使用上の注意等につきましては添付文書をご参照ください。

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【例題】ある電線の断面積が $1.5\text{ cm}^2$ 、長さ $100\text{ m}$ 、電線材料の密度が $2.7\text{ g/cm}^3$ 、電線材料の電気抵抗率が $2.8\times 10^{-8}\text{ }\Omega\cdot\text{m}$ であるとき、この電線の質量と電気抵抗を求めよ。

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[illegible][illegible][illegible]

10/24/1999

**Abstract:** The purpose of this study was to determine the effect of a 12-week training program on the physical fitness of 10-year-old children. The study was conducted in a primary school in Ankara, Turkey. The children were divided into two groups: a control group and an experimental group. The experimental group participated in a 12-week training program that included aerobic, strength, and flexibility exercises. The control group did not participate in any training program. Physical fitness was measured at the beginning and end of the 12-week period using a series of tests including a 1000m run, a 10m sprint, a 10m shuttle run, a 10m sit and reach, and a 10m standing long jump. The results showed that the experimental group had significantly higher scores than the control group in all five tests at the end of the 12-week period. The findings suggest that a 12-week training program can improve the physical fitness of 10-year-old children.

[illegible]

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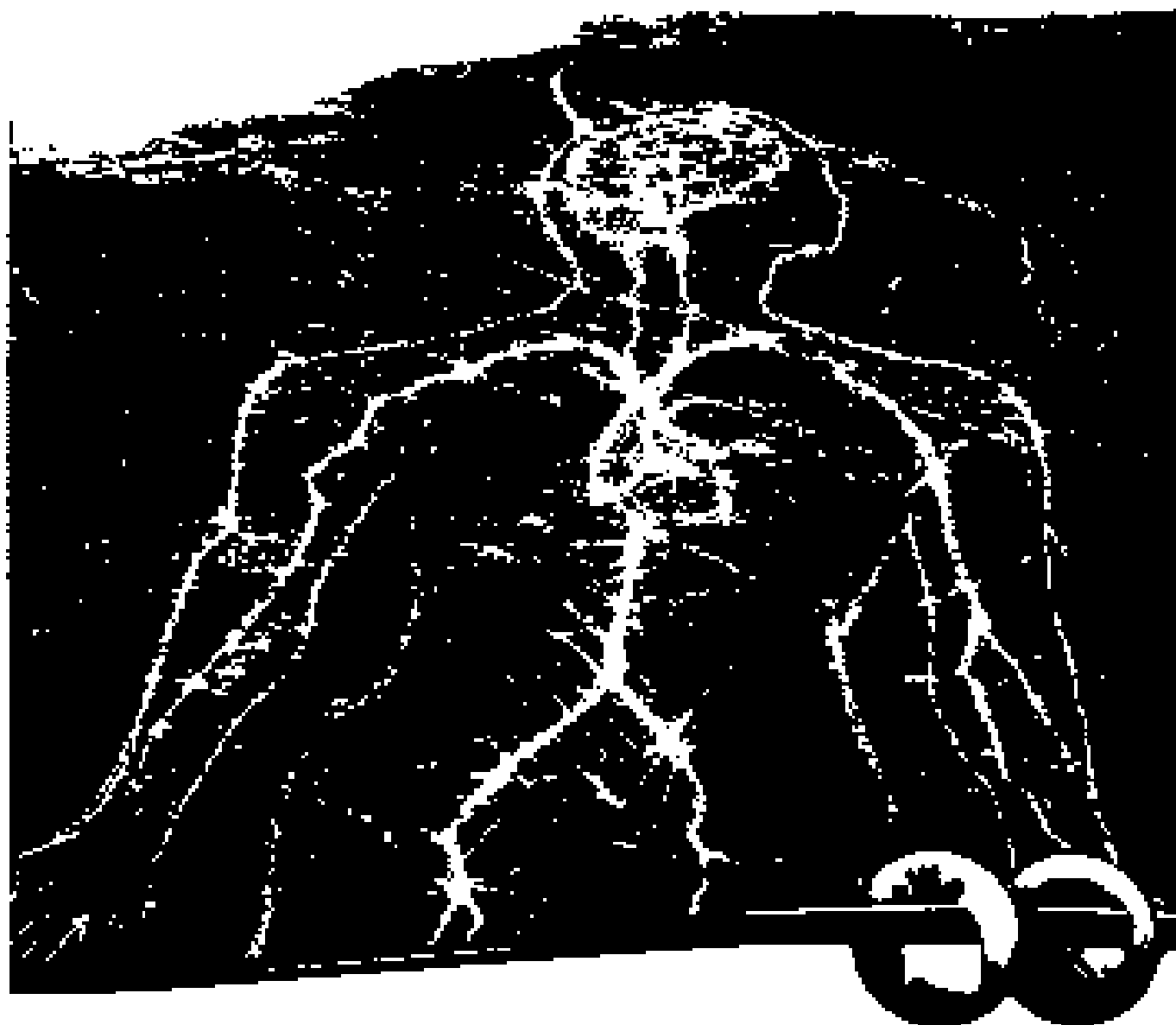
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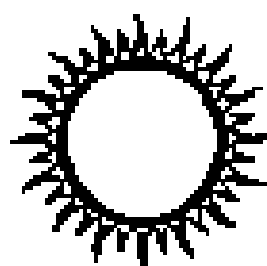
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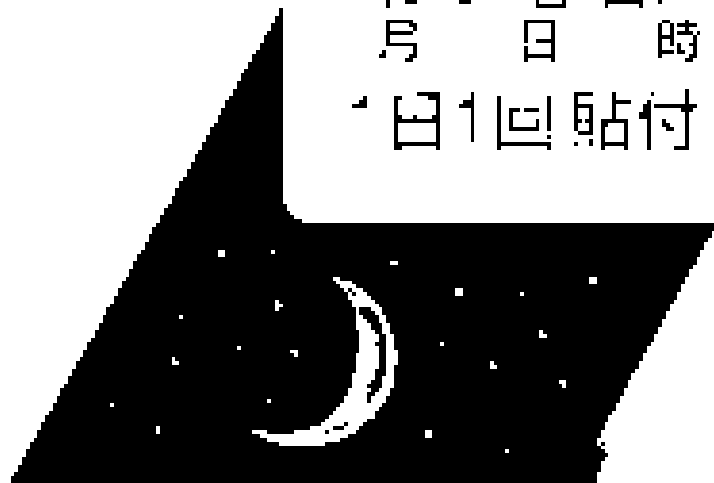
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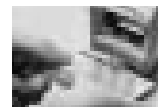
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# マイラン製薬の経口抗悪性腫瘍薬

薬価基準収載

アロマターゼ阻害剤／閉経後乳癌治療剤

## エキセメスタン錠25mg「マイラン」

エキセメスタン錠

処方せん医薬品<sup>注)</sup>

注)：注意・医師等の処方せんにより使用すること

前立腺癌治療剤

## ビカルタミド錠80mg「マイラン」

劇薬

処方せん医薬品<sup>注)</sup>

注)：注意・医師等の処方せんにより使用すること

前立腺癌治療剤

## フルタミド錠125mg「マイラン」

劇薬

処方せん医薬品<sup>注)</sup>

注)：注意・医師等の処方せんにより使用すること



エキセメスタン錠25mg「マイラン」

マイラン製薬株式会社

〒105-0001 東京都港区虎ノ門 5-11-2 オランダヒルズ森タワー

マイラン製薬

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時間帯によりましてはお電話が集中し繋がりにくいことがあります。  
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2012年6月作成

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# BX3 Series



システム顕微鏡BX43



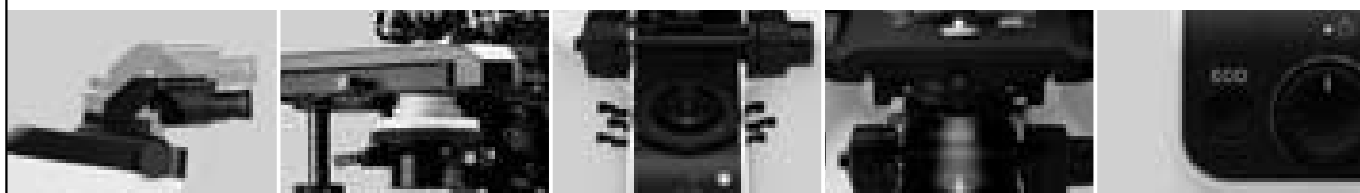
システム顕微鏡BX53

## より効率よく、より快適に。BX3シリーズ。

オリンパスのBX53/BX43は、繁忙を極める検査現場のルーチンワークを「より効率よく」、「より快適に」するために、一人ひとりに合った疲れにくい観察姿勢の実現と、快適な操作性を追求した顕微鏡です。

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ぜひ、この機会にスペックだけでは語り尽くせない「快適さ」をご体感ください。



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### 必要な結果を素早く入手。

重要な役割を果たす診断。その結果を待つ時間も貴重です。Aperio Digital Pathology Environment™ を利用して同僚や専門医がデジタルスライドの画像を即座に利用できるようにすることで、臨床医への診断報告にかかる時間が短縮され、ひいては、患者が診断を待つ時間も短縮します。デジタル操作によってスライドガラスの準備や送付のための時間とコストが省かれ、施設の全体的な効率が向上します。

データおよび画像管理や自動画像分析、病理所見の手軽な保管や検索など、アペリオが提供する各種デジタルパソロジーのソリューションをご覧ください。

*Make pathology extraordinary*-- アペリオがお手伝いします。

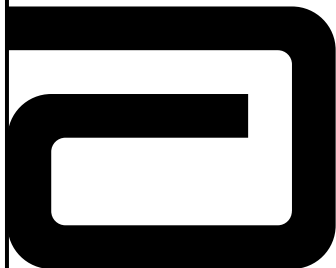


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MAKE PATHOLOGY EXTRAORDINARY

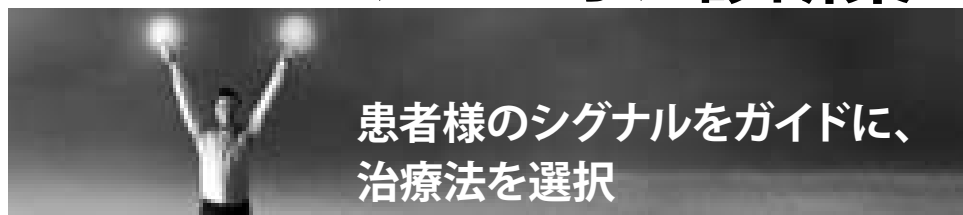


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## 遺伝子検査による**コンパニオン診断薬**



患者様のシグナルをガイドに、  
治療法を選択

### ◆ALK阻害剤(クリゾチニブ)の投与患者選択の補助

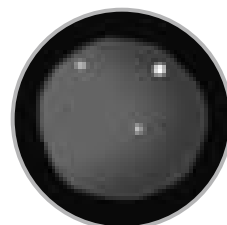
ALK融合遺伝子検出キット

#### 「Vysis® ALK Break Apart FISHプローブキット」

製造販売承認番号 22400AMX00630000

##### 【重要な基本的注意】

本キットはALK阻害剤(クリゾチニブ)の投薬患者を選択することを目的とした体外診断用医薬品であるため、ALK阻害剤で承認を受けていないがん種の患者に対して、投薬患者の選択を目的とした検査には使用しないこと



ALK融合遺伝子の検出(陽性例)

### ◆乳がん、胃がん患者における抗悪性腫瘍剤 (トラスツズマブ)の投与患者選択の補助

HER2遺伝子キット

#### 「パスビジョン® HER-2 DNAプローブキット」

製造販売承認番号 21400AMY00016000

## 研究用試薬、他

### ◇VYSIS™ DNA FISHプローブ

- ◆出生前・出生後関連
- ◆CEP®
- ◆固形腫瘍関連
- ◆TelVysion
- ◆血液腫瘍関連

### ◇FISH関連機器

- ◆スライド変性/ハイブリダイゼーションシステム ThermoBrite™
- ◆自動前処理装置 VP2000

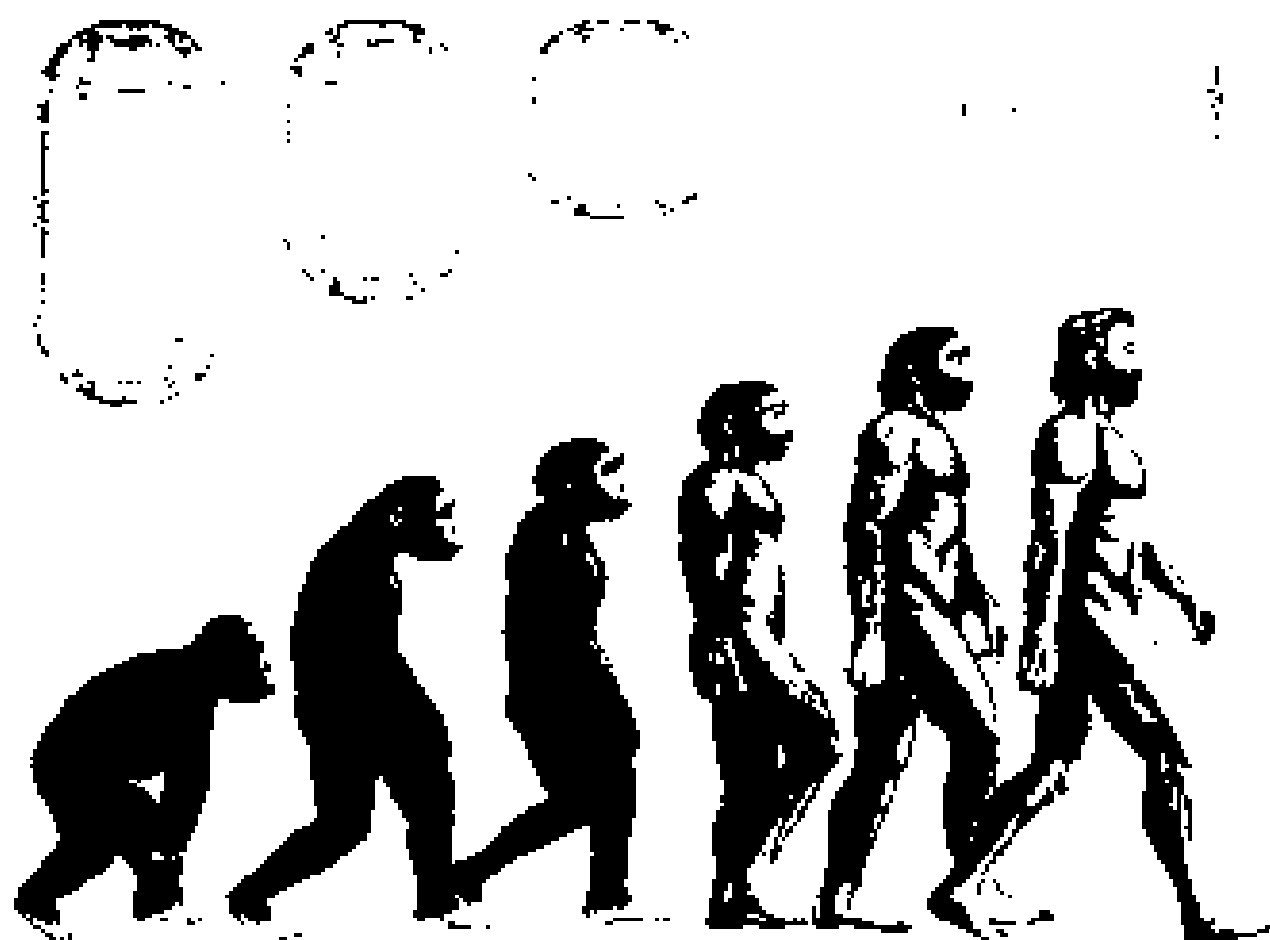
### ◇VYSIS™純正フィルター(蛍光顕微鏡用)

## アボット ジャパン株式会社

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錠・カプセル剤

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# リピディル錠 53.3mg・80mg

フェノフィブラート錠

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製造

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〒100-0001 東京都千代田区千代田1-1-1

発売

Laboratoires EURLIER S.A.  
(France)

1997.12.15現在



## ベンタナ Digital Pathology System

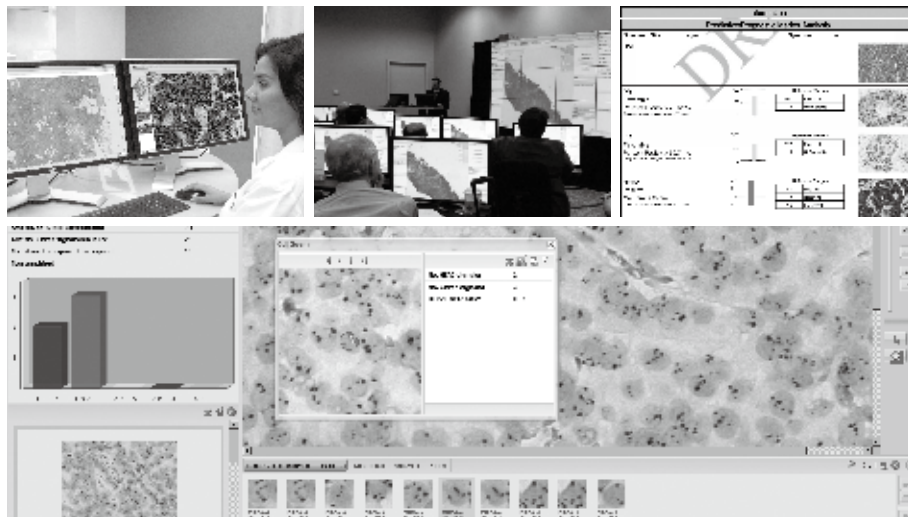
ロシュでは、ベンタナDigital Pathology Systemとしてバーチャルスライドスキャナーベンタナ iScan Coreo Au と画像解析・マネジメントシステムベンタナVirtuosoを発売しました。  
ロシュでは抗体・検出試薬・染色装置・バーチャルスライド・画像解析のフルラインナップを取りそろえ、ますます複雑化する病理診断のお手伝いをしてまいります。

### バーチャルスキャナー ベンタナ iScan Coreo Au



特徴：コンパクトなボディ (460×470×510mm) に160枚ローダー装備  
電動レボルバー (X4,X10,X20,X40) 装備によりスライド毎の倍率指定可能  
スライドをスキャンすることなくテレパソを行うLive Mode搭載

### 画像解析・マネジメントシステム ベンタナ Virtuoso



特徴：画像の管理やシェア、レポート作成に加え画像解析機能を搭載  
解析アルゴリズム (乳腺用) : IHC HER2/Er/PgR/Ki-67/p53  
ISH HER2DISH

\*今後も随時拡大していきます

お問い合わせは担当営業、またはカスタマーサポートセンターまでお願いします

**ロシュ・ダイアグノスティクス株式会社** 〒105-0014 東京都港区芝2-6-1  
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バイクリル\*プラスは、  
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「Irgacare®MP(トリクロサン)」を添加した  
初めての抗菌縫合糸です。

バイクリル\*プラス縫合糸は、最も純度の高いトリクロサンである「Irgacare®MP」を使用しており、  
縫合糸上の細菌のコロニー形成を抑制します。

外科手術において、全ての縫合糸は異物であり、病原体のコロニー形成の場となり得ます。

本製品は、最もSSIに関連性の高い病原体にその保護特性を発揮し、  
SSIのリスク低減をサポートします。

### Irgacare®MP(トリクロサン)

日本では1972年に医薬品として承認され、医薬部外品の原料としては既に  
30年以上の使用実績があり、歯磨き粉・マウスウォッシュ・ハンドソープ・石鹸などに  
使用されています。※1

### 抗菌性が実証されている細菌

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- 表皮ブドウ球菌
- メチシリン耐性黄色ブドウ球菌 (MRSA)
- メチシリン耐性表皮ブドウ球菌 (MRSE)



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高度管理医療機器 販売名: バイクリル\*プラス 承認番号: 22000BZX01652000

#### 参考文献

※1. Gilbert P, et al, A Literature-based Evaluation of the Potential Risks Associated with Impregnation of Medical Devices and Implants with Triclosan, Surgical Infections, 2002, (3), Suppl., 2002, S-55 - S-63.

Barbott TA, et al, Chemistry and safety of triclosan, and its use as an antimicrobial coating on Coated VICRYL\* Plus Antibacterial Suture (coated polyglactin 910 suture with triclosan), Surgical Infections, (Larchmt), 2002;3 Suppl 1:S45-53.

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