**Room 1  8:30-10:30 Symposium Proposed by the JSE Academic Advisory Committee [SPP]**

**Autonomic tone and Arrhythmia**

*Chairs*
- Hiroshi Inoue  
  *Saiseikai Toyama Hospital, Toyama, Japan*
- Naohiko Takahashi  
  *Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan*

**SPP1**  
**Autonomic tone and molecular electrophysiology**

*Katsushige Ono*  
*Department of Pathophysiology, Oita University School of Medicine, Oita, Japan*

**SPP2**  
**Autonomic nerve activity and ventricular tachyarrhythmias associated with structural heart diseases**

*Masaomi Chinushi*, Kenichi Iijima, Akinori Sato, Daisuke Izumi, Osamu Saitoh, Hiroshi Furushima, Tohru Minamino  
1*Graduate School of Health Sciences, Niigata University School of Medicine, Niigata, Japan, 2*Cardiovascular Biology and Medicine Niigata University School of Medicine, Niigata, Japan, 3*Furushima Clinic, Niigata, Japan*

**SPP3**  
**Role of Autonomic Nervous Activity in Patients with Idiopathic Ventricular Fibrillation and Long QT Syndrome**

*Koichi Mizumaki*, Kunihiro Nishida, Naoya Kataoka, Yosuke Nakatani, Tamotsu Sakamoto, Yoshiaki Yamaguchi, Hiroshi Inoue  
1*Clinical Research and Ethics Center, University of Toyama, Toyama, Japan, 2*Second Department of Internal Medicine, Graduate School of Medicine, University of Toyama, Toyama, Japan, 3*Saiseikai Toyama Hospital, Toyama, Japan*

**SPP4**  
**Atrial Fibrillation and Autonomic Function: Significance of GP Ablation**

*Kenzo Hirao*  
*Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*

**SPP5**  
**Pathophysiological Mechanisms on the Relationship Between Autonomic Nervous System and Arrhythmia in Obstructive Sleep Apnea Syndrome**

*Yu-ki Iwasaki*  
*The Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan*

**SPP6**  
**Prevention of Sudden Cardiac Death Using β Blockers**

*Takanori Ikeda*  
*Department of Cardiovascular Medicine, Toho University Faculty of Medicine, Tokyo, Japan*
Autonomic neuromodulation for refractory heart failure and arrhythmias

Chair  Youichi Kobayashi
Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan

Kenji Sunagawa
Department of Therapeutic Regulation of Cardiovascular Homeostasis, Center for Disruptive Cardiovascular Medicine, Kyushu University, Fukuoka, Japan
Impacts of NOACs Introduction on the Clinical Treatment and Outcomes of NVAF Patient in the Cardiovascular Institute

Chair
Ken Okumura
Department of Cardiology, Hirosaki University Graduate School of Medicine, Aomori, Japan

LS13-1 Impacts of NOACs Introduction on the Clinical Treatment and Outcomes of NVAF Patient in the Cardiovascular Institute

Takeshi Yamashita
The Cardiovascular Institute, Tokyo, Japan

(DAIICHI SANKYO COMPANY, LIMITED)
Thursday, 30 July

Room 1  14:10-15:10 Koshichiro Hirosawa Memorial Lecture [KHL]

Cardiomyopathies Up-to-date: Lesson from the Patients and for the Future

Chair Satoshi Ogawa
*International University of Health and Welfare Mita Hospital, Tokyo, Japan*

KHL  Cardiomyopathies Up-to-date: Lesson from the Patients and for the Future

Michiaki Hiroe
*The Department of Cardiology, National Center for Global Health and Medicine, Tokyo, Japan*
Patient Management of Pain and Anxiety during Electrophysiological Procedures as Device Implantation or Catheter Ablation

Chairs  
Yoshimi Inagaki  
Department of Anesthesiology and Critical Care Medicine, Tottori University Faculty of Medicine, Tottori, Japan  
Yasushi Miyauchi  
Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan

SP6-1 Key Note Lecture: What is sedation?  
Yoshimi Inagaki  
Department of Anesthesiology and Critical Care Medicine, Tottori University Faculty of Medicine, Tottori, Japan

SP6-2 Balance between patient immobility and risk for apnea during intraprocedural sedation  
Akinori Sairaku¹, Yukihiyo Yoshida², Yukiko Nakano³, Yasuki Kihara¹  
¹Department of Cardiology, Hiroshima University, Hiroshima, Japan, ²Department of Cardiology, Nagoya Daini Red Cross Hospital, Aichi, Japan

SP6-3 Deep Sedation Using Propofol under Meticulous Respiratory Management for NavX-guided Atrial Fibrillation Ablation  
Takanori Yamaguchi¹, Takeshi Tsuchiya¹, Akira Fukui², Yasutsugu Nagamoto³, Chie Yasuoka⁴, Naohiko Takahashi⁵  
¹EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, ²Saga-ken Medical Centre Koseikan, Saga, Japan, ³Omura Municipal Hospital Cardiovascular Center, Nagasaki, Japan, ⁴Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan

SP6-4 Airway support with pediatric intubation tube in adult atrial fibrillation patients: A novel method to prevent heart movement during catheter ablation under continuous-deep-sedation  
Masateru Takigawa¹, Atsushi Takahashi¹, Taishi Kuwahara¹, Kenji Okubo¹, Yasuaki Tanaka¹, Kazuya Yamao², Emiko Nakashima³, Jun Nakajima¹, Katsumasa Takagi¹, Mitsuaki Isobe³, Kenzo Hirao³  
¹Cardiovascular Center, Yokosuka Kyosai Hospital, Kanagawa, Japan, ²Department of Cardiology, Tokyo Medical and Dental University, Tokyo, Japan, ³Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan

SP6-5 Simple Minimal Sedation for Catheter Ablation of Atrial Fibrillation Using Hydroxyzine Pamoate and Pentazocine  
Shinsuke Miyazaki, Makoto Araki, Noboru Ichihara, Takamitsu Takagi, Jin Iwasawa, Akio Kuroi, Hiroaki Nakamura, Hiroshi Taniguchi, Hitoshi Hachiya, Yoshito Iesaka  
Division of Cardiology, Cardiovascular Center, Tsuchiura Kyodo Hospital, Ibaraki, Japan
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<td>EC2-2</td>
<td>ホルター心電図を用いた心電図診断と危険な不整脈のスクリーニング</td>
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Room 2 | 8:30-10:00 Panel Discussion4 [PD4]

Total Management of Catheter Ablation for Persistent Atrial Fibrillation

**Chairs**  
Kazutaka Aonuma  
*Cardiovascular Division, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Ibaraki, Japan*

Kazuo Matsumoto  
*Higashimatsuyama Medical Association Hospital, Saitama, Japan / Cardiology Department of International Medical Center Saitama Medical University, Saitama, Japan*

PD4-1 Low Amplitude Fibrillatory Waves on the Surface ECG Predicts Non-responders of Ablation in Patients with Long-standing Persistent Atrial Fibrillation

Yoshiyuki Hama¹, Yuji Matsudo¹, Taishi Kuwahara², Noriko Eguchi³, Haruka Fujimaki³, Ikuto Terabayashi³, Kohei Kamishita³, Bi Katsu³, Shuzo Tanaka³, Norimasa Tonoike³, Kyokushi Hou³, Tai Sekine³, Masashi Yamamoto³, Toshiharu Himi³

¹Division of Cardiology, Kimitsu Chuo Hospital, Chiba, Japan, ²Cardiovascular Center, Yokosuka Kyousai Hospital, Kanagawa, Japan

PD4-2 Selection of optimal strategy and candidates amenable to catheter ablation for long-standing persistent atrial fibrillation according to the response of electrical cardioversion

Atsushi Takahashi¹, Taishi Kuwahara¹, Katsumasa Takagi¹, Kenji Okubo¹, Yasuyuki Tanaka¹, Masateru Takigawa¹, Jun Nakajima¹, Emiko Nakashima¹, Kazuo Yamao¹, Kenzo Hiro¹, Mitsuaki Isobe²

¹Cardiovascular Center, Yokosuka Kyosai Hospital, Kanagawa, Japan, ²Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan

PD4-3 Indication and Follow-up of Catheter Ablation for Persistent Atrial Fibrillation from the Perspective of Left Atrial Function; A Novel Index of Echocardiography

Takahiko Nagase¹, Ritsushi Kato¹, Yoshifumi Ikeda¹, Yuichiro Shiki¹, Yoshihiro Yamada¹, Sayaka Tanaka¹, Shirou Iwanaga¹, Shigyuki Nishimura¹, Kazuo Matsumoto²

¹Department of Cardiology, Saitama Medical University, International Medical Center, Saitama, Japan, ²Higashimatsuyama Medical Association Hospital, Saitama, Japan

PD4-4 Left Atrial Linear Ablation in Patients with Persistent Atrial Fibrillation

Seiichiro Matsuo, Teiichi Yamane, Kenichi Tokutake, Kenichi Yokoyama, Mika Hioki, Ryohsuke Nari, Shin-ichi Tanigawa, Michifumi Tokuda, Seigo Yamashita, Keiichi Inada, Kenri Shibayama, Satoru Miyanaga, Kenichi Sugimoto, Michihiro Yoshimura

The Department of Cardiology, The Jikei University School of Medicine, Tokyo, Japan
PD4-5  The Efficacy of Epicardial Adipose Tissue Ablation Based on the Dominant Frequency of Non-paroxysmal Atrial Fibrillation

Koji Kumagai, Masahiro Nakano, Daisuke Kutsuzawa, Yoshiaki Yamaguchi, Kentaro Minami, Manabu Shimizu, Toshiaki Yano, Takehito Sasaki, Kohki Nakamura, Shigeto Naito, Shigeru Oshima

Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan

PD4-6  Characteristics of refractory persistent AF patients after ganglionated plexus plus antral PV isolation based approach

Kohei Yamashiro, Daisuke Yoshimoto, Mitsuaki Ito, Kazuto Kujira, Yuichiro Sakamoto

Cardiovascular Medicine, Toyohashi Heart Center, Aichi, Japan
Approach to Non-responder of CRT ★

Chairs
Toshiyuki Ishikawa
Department of Cardiovascular Medicine, Yokohama City University School of Medicine, Kanagawa, Japan
Hisashi Yokoshiki
Department of Cardiovascular Medicine, Hokkaido University Hospital, Hokkaido, Japan

SP7-1 Key Note Lecture: Approach to Non-Responders of CRT
Bernard Thibault
Montreal Heart Institute, Canada

SP7-2 CRT non-responder can decrease by appropriate patient selection along current guidelines
Toshiko Nakai1, Yukitoshi Ikeya1, Sonoko Ashino1, Kazuki Iso1, Keiko Takahashi1, Naoko Sasaki1, Kazumasa Sonoda1, Rikitake Kogawa1, Koichi Nagashima2, Masaaki Nagashima3, Sayaka Kurokawa1, Yasuo Okumura1, Kimie Ohkubo1, Toshiyuki Ohya1, Satoshi Kunimoto1, Yuji Kasamaki1, Ichiro Watanabe1, Atsushi Hirayama1
1Department of Medicine, Division of Cardiology, Nihon University School of Medicine, Tokyo, Japan, 2Division of Laboratory Medicine, Department of Pathology and Microbiology, Nihon University School of Medicine, Tokyo, Japan

SP7-3 Presence of mitral regurgitation at mid-term follow-up predicts rehospitalization due to worsening heart failure in non-responder patients to cardiac resynchronization therapy
Hitoshi Minamiguchi, Hiroya Mizuno, Shozo Konishi, Kentaro Ozu, Tomoaki Nakano, Tomohito Ohtani, Yuji Okuyama, Osamu Yamaguchi, Yasushi Sakata
Department of Cardiovascular Medicine, Osaka University Graduate School of Medicine, Osaka, Japan

SP7-4 Programming and pharmacological optimization for long-term structural reverse remodeling in patients with cardiac resynchronization therapy
Ikutaro Nakajima, Takashi Noda, Mitsuru Wada, Kohei Ishibashi, Koji Miyamoto, Hideo Okamura, Takeshi Aiba, Shiro Kamakura, Kengo Kusano
Division of Cardiology, National Cerebral and Cardiovascular Center, Osaka, Japan

SP7-5 Ventricular tachyarrhythmias of implantable cardioverter defibrillator patients who are upgraded to cardiac resynchronization therapy increase or decrease in response?
Junjiroh Koyama, Yasuaki Tanaka, Takuo Tsurugi, Hideharu Okamatsu, Masataka Kajiwara, Toshihiro Honda
Division of Cardiology, Saiseikai Kumamoto Hospital Cardiovascular Center, Kumamoto, Japan
Room 2  11:50-12:50 Luncheon Seminar14 [LS14]

**Focus on Apixaban: Stroke Prevention Up-To-Date Strategy for AF Patients with HF in Elderly Patients ★**

**Chair**  Hideo Mitamura  
*Tachikawa Hospital, Federation of National Public Service Personnel Mutual Aid Association, Tokyo, Japan*

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**LS14-1**  Heart Failure and Atrial Fibrillation: Lessons From Registries and Clinical Trials  
*Hiroyuki Tsutsui*  
*Department of Cardiovascular Medicine, Hokkaido University Graduate School of Medicine, Hokkaido, Japan*

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**LS14-2**  New Data on Stroke Prevention in AF Patients with Heart Failure - Focus on Apixaban  
*John J V McMurray*  
*Medical Cardiology in the Institute of Cardiovascular and Medical Sciences, University of Glasgow, UK*  
*(Bristol-Myers K.K. / Pfizer Japan Inc.)*
Room 2  14:10-17:10 Oklahoma Ablation Course Revisited Educational Lectures for Young EP Doctors [OAC]

★

Director
Warren M. Jackman
University of Oklahoma Health Sciences Center, USA

Co-Directors
Hiroshi Nakagawa
University of Oklahoma Health Sciences Center, USA

Kazuo Matsumoto
Higashimatsuyama Medical Association Hospital, Saitama, Japan / Cardiology Department of International Medical Center Saitama Medical University, Saitama, Japan

Opening Remarks
Johnson & Johnson K.K.

Session 1
Chair Hiroshi Nakagawa
University of Oklahoma Health Sciences Center, USA

OAC1 Lecture 1  Radiofrequency Catheter Ablation: Lessons on Lesions
Hiroshi Nakagawa
University of Oklahoma Health Sciences Center, USA

OAC2 Lecture 2  WPW Syndrome Ablation
Warren M. Jackman
University of Oklahoma Health Sciences Center, USA

OAC3 Lecture 3  AVNRT Ablation
Warren M. Jackman
University of Oklahoma Health Sciences Center, USA

Session 2
Chair Kazuo Matsumoto
Higashimatsuyama Medical Association Hospital, Saitama, Japan / Cardiology Department of International Medical Center Saitama Medical University, Saitama, Japan

OAC4 Lecture 4  Electrophysiological and anatomical substrates of verapamil-sensitive idiopathic left ventricular tachycardia
Yoshinori Kobayashi
Department of Cardiology, Tokai University Hachioji-Hospital, Tokyo, Japan
OAC5 Lecture 5  Tips and Tricks for VT Ablation: Substrate Mapping, Entrainment, and Pacemapping

Kyoko Soejima

The Second Department of Internal Medicine, Kyorin University Hospital, Tokyo, Japan

OAC6 Lecture 6  Prospective Study to Test the Ability to Create RF Lesions at Predicted Depth and Diameter Using a New Formula Incorporating Contact Force, Radiofrequency Power and Application Time (Force-Power-Time Index) in the Beating Canine Heart

Hiroshi Nakagawa

University of Oklahoma Health Sciences Center, USA

Closing Remarks

Warren M. Jackman

University of Oklahoma Health Sciences Center, USA

(Johnson & Johnson K.K.)
Epicardial VT ablation: When and How?

Chair Youichi Kobayashi
Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan

MS1-1 Epicardial VT ablation: When and How?
Seiji Fukamizu
Department of Cardiology, Tokyo Metropolitan Hiroo Hospital, Tokyo, Japan

(Novartis Pharma K.K.)
Noninvasive Test for Prediction of Sudden Cardiac Death — Conventional Methods and Its New Application — ★

Chairs: Masatake Fukunami
Osaka General Medical Center, Osaka, Japan
Koichiro Yoshioka
Tokai University School of Medicine, Cardiology, Kanagawa, Japan

Key Note Lecture: Combined Use of Noninvasive Risk Stratification Tools for Sudden Cardiac Death
Takanori Ikeda
Department of Cardiovascular Medicine, Toho University Faculty of Medicine, Tokyo, Japan

SP8-1 Circadian Variation, Rate-dependent Dynamics of Late Potential (LP) in Sarcoidosis, ARVC, IVF, Brugada Syndrome Evaluated by SAECG Using 24h-HolterECG
Mutsuko Sangawa, Hiroshi Morita, Motomi Tachibana, Koji Nakagawa, Nobuhiro Nishii, Satoshi Nagase, Kazufumi Nakamura, Hiroshi Ito
Department of Cardiovascular Medicine, Okayama University, Okayama, Japan

SP8-2 Prevalence and Prognostic Significance of Late Potentials in Patients with Sarcoidosis
Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan

SP8-3 Prognostic significance of ventricular late potential for prediction of recurrent hospitalization events in patients with acute coronary syndrome
Mari Amino, Koichiro Yoshioka, Mari Nakamura, Eiichi Watanabe, Daisuke Fujibayashi, Shigetaka Kanda, Sadaki Inokuchi, Yoshinori Kobayashi, Teruhisa Tanabe, Yuji Ikari
1Department of Cardiovascular Medicine, Tokai University School of Medicine, Kanagawa, Japan, 2Department of Cardiology, Fujita Health University School of Medicine, Aichi, Japan, 3Department of Emergency Critical Care Medicine, Tokai University School of Medicine, Kanagawa, Japan, 4Ebina General Hospital Cardiovascular Center, Kanagawa, Japan
**SP8-4** Spatial distribution of the late gadolinium enhancement on cardiac MRI strongly affects maximal T-wave alternans sites on the 12-lead Holter ECG in hypertrophic cardiomyopathy

Naka Sakamoto, Nobuyuki Sato, Eitaro Sugiyama, Yasuko Tanabe, Yuichiro Kawamura, Naoyuki Hasebe
The Department of Cardiology, Asahikawa Medical University, Hokkaido, Japan

**SP8-5** Patients with implantable cardioverter defibrillator at risk for ventricular tachyarrhythmias: Identification by ambulatory electrocardiogram-based frequency domain T-wave alternans in comparison with heart rate variability and heart rate turbulence

Masato Kawasaki, Takahisa Yamada, Takashi Morita, Yoshio Furukawa, Shunsuke Tamaki, Yusuke Iwasaki, Atsushi Kikuchi, Takumi Kondo, Masashi Ishimi, Hideyuki Hakui, Tatsuhisa Ozaki, Yoshihiro Sato, Masahiro Seo, Masatake Fukunami
Division of Cardiology, Osaka General Medical Center, Osaka, Japan
Room 3  10:00-11:30 Panel Discussion [PD5]

The Role of Imaging Modalities in the EP Laboratory

**Chairs**
Hiroshi Nakagawa  
*University of Oklahoma Health Sciences Center, USA*

Ritsushi Kato  
*Department of Cardiology, Saitama Medical University, International Medical Center, Saitama, Japan*

**PD5-1** Pre-procedural Assessment of Atrial and Ventricular Tissue Scar Identified by Delayed Enhancement MRI for Catheter Ablation

Yasuo Okumura, Ichiro Watanabe, Kazumasa Sonoda, Koichi Nagashima, Naoko Sasaki, Rikitake Kogawa, Keiko Takahashi, Kazuki Iso, Satoshi Kunimoto, Kimie Ohkubo, Toshiko Nakai, Atsushi Hirayama  
*Division of Cardiology, Department of Medicine, Nihon University School of Medicine, Tokyo, Japan*

**PD5-2** Accuracy of delayed enhancement magnetic resonance imaging detecting the reconnection site in 2nd AF ablation

Kunihiko Kiuchi, Katsunori Okajima, Akira Shimane, Kiminobu Yokoi, Jin Teranishi, Kousuke Aoki, Misato Chimura, Takayoshi Toba, Shogo Ohishi, Takahiro Sawada, Yasue Tsukishiro, Tetsurai Onishi, Seiichi Kobayashi, Shinichiro Yamada, Yasuyoshi Taniguchi, Yoshinori Yasaka, Hiroya Kawai, Kazushi Ikeuchi, Yutaka Shigenaga, Takayuki Ikeda  
*1Department of Cardiology, Himeji Cardiovascular Center, Hyogo, Japan, 2Department of Laboratory and Radiology, Himeji Cardiovascular Center, Hyogo, Japan*

**PD5-3** Novel evaluation method with delayed-enhancement magnetic resonance imaging for assessment of lesions after cryothermal balloon ablation

Tsuyoshi Mishima, Koji Miyamoto, Yoshinari Morita, Mitsuru Wada, Ikutaro Nakajima, Kohei Ishibashi, Hideo Okamura, Takashi Noda, Takeshi Aiba, Shiro Kamakura, Kengo Kusano  
*1The Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan, 2The Department of Radiology, National Cerebral and Cardiovascular Center, Osaka, Japan*

**PD5-4** Integration of MDCT-Imaged Myocardial Fatty Infiltration into 3D Navigation System to Guide Ventricular Tachycardia Ablation in Arrhythmogenic Right Ventricular Cardiomyopathy

Yuki Komatsu, Michel Haissaguerre, Pierre Jais  
*Cardiology Division, Yokohama Rosai Hospital, Kanagawa, Japan, Department of Cardiac Electrophysiology, Hopital Cardiologique du Haut-Leveque, CHU Bordeaux, Bordeaux, France*
Development of a Novel Real-Time Phase Mapping System Using in Silico Technique for Identifying Unstable Rotors in Human Atrial Fibrillation

Takashi Ashihara¹, Tomoya Ozawa¹, Takeshi Tsuchiya², Takanori Yamaguchi³, Akira Fukui², Ryo Haraguchi², Shin Inada³, Kazuo Nakazawa⁴, Minoru Horie¹

¹Department of Cardiovascular Medicine, Shiga University of Medical Science, Shiga, Japan, ²EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, ³Department of Cardiology and Clinical Examination, Oita University, Oita, Japan, ⁴National Cerebral and Cardiovascular Center, Osaka, Japan
Room 3  11:50-12:50 Luncheon Seminar15 [LS15]

Novel methods for evaluation of repolarization dynamics during 24-h Holter ECG
〜QT-RR relation and AF embolism〜

Chair  Naohiko Takahashi
Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan

LS15-1  Novel methods for evaluation of repolarization dynamics during 24-h Holter ECG
〜QT-RR relation and AF embolism〜

Akira Fujiki
Shizuoka Heart Rhythm Clinic, Shizuoka, Japan

(FUKUDA DENSHI CO., LTD)
Room 3  14:10-15:10 Debate（Medical Professionals）2 [MD2]

デバイスの遠隔診断の普及は必要である

座長  西井伸洋
岡山大学大学院医歯学総合研究科循環器内科

MD2-1 賛成
伊藤朋晃
小倉記念病院検査技師部工学課

MD2-2 反対
堺 美郎
熊本済生会病院臨床工学部
アブレーション2（メディカルプロフェッショナル）

座長 山部浩茂
熊本大学大学院生命科学研究部 循環器内科学

岡本陽地
倉敷中央病院心臓病センター 循環器内科

M3-1 Ensite NavXにおける大動脈リファレンス留置部位の比較検討
官野高明1, 齋藤正樹2, 久次米真吾3, 安藤元雄2, 飯田大輔2, 山家 謙2, 竹中 創2, 郡司尚玲3
1緑成会横浜総合病院臨床工学科, 2緑成会横浜総合病院循環器内科, 3勤医協中病院循環器科

M3-2 EnSite Velocity™使用中のドリフト軽減に対するNavX体表面電極キットLarge の有用性
根津知行1, 山田将志1, 宮城恵子1, 竹原由裕1, 千葉晶奈1, 沼里淳平1, 小笠原素2, 森本 亮2, 林 直2, 円城寺由香2
1大崎病院東京ハートセンター臨床工学科, 2大崎病院東京ハートセンター循環器内科不整脈診療部, 3セント・ジュード・メディカル株式会社

M3-3 心房細動アブレーション後の複数起源のPACに対してEnSite VelocityシステムのMulti Morphology Mappingが有効だった1例
中西理恵子1, 内藤雅起2, 藤本 源2, 平井香衣子2, 荻野 祐1, 田仲直弘1, 上村義昌1, 布元孝典1, 寺田賢二1, 土肥直文2
1奈良県西和医療センター診療部臨床工学室, 2奈良県西和医療センター

M3-4 心房頻拍症例時のElectro-anatomical mappingにおけるReference電極の評価
長瀬弘行1, 間瀬健太朗1, 又野暢天1, 林 洋佑1, 奥村一史1, 大坂克浩1, 新田功児1, 浅井 徹2, 志水清和2
1一宮市立市民病院臨床工学室, 2一宮市立市民病院循環器内科

M3-5 心房細動に対するボックス隔離術後の"Gate map"の有効性
森末明彦1, 中下清文1, 島崎純一1, 藤井美弥1, 新井翔太1, 木下卓也1, 原 幹2, 城日加里3, 梶原賢太3, 新田和宏3, 梶原真二3, 小野裕二郎3
1独立行政法人国立病院機構東広島医療センター医療機器管理室, 2独立行政法人国立病院機構東広島医療センター循環器内科
遠隔モニタリング（メディカルプロフェッショナル）

座長 栗田康生
国際医療福祉大学大学院
久保元基
心臓病センター浦原病院 循環器内科

M4-1 ケアリンクエクスプレスが外来診療に与える影響～患者の待ち時間短縮の試みから見えてきたこと～
菅 令子
鳥取県立中央病院看護

M4-2 遠隔モニタリングのバックアップ作動によるアラート経験
神谷典男1, 北本憲永1, 広瀬徳勝1, 藤井法希1, 久保祐樹1, 杉浦 亮2, 岡 俊明3, 岩谷亜矢子3
1聖蔵浜松病院臨床工学室, 2聖蔵浜松病院循環器科, 3聖蔵浜松病院看護

M4-3 呼吸状態の遠隔モニタリングの重要性
藤原麻未1, 山本真由美2, 越川真行2, 市川智英2, 祖父江嘉洋2, 原田雅夫2, 太川壮亮1, 山本 賢1, 渡邉英一2, 尾崎行男1
1藤田保健衛生大学病院臨床検査部, 2藤田保健衛生大学循環器内科

M4-4 ペースメーカー植込み患者の遠隔モニタリングにおける心室頻拍エピソードの意義
早坂秀幸1, 草浦理恵1, 安田 徹1, 百瀬直樹1, 林 武邦2, 苗原義厚2, 三橋武司2
1自治医科大学附属さいたま医療センター, 2自治医科大学附属さいたま医療センター循環器科

M4-5 小児患者の遠隔モニタリングシステムの現状と課題
丸川史織1, 井上完起2, 阿崎真紀子3, 増田愛子1, 前田友未1, 矢川真弓子2, 上田知実4, 和田直樹5, 嘉川忠博4, 安藤 誠5, 辻 孝子1, 三浦穂郁子1, 朴 仁三4, 高橋幸宏4, 梅村 明5, 友池仁浩2
1日本心臓血管研究振興会附属篠原記念病院看護部, 2日本心臓血管研究振興会附属篠原記念病院循環器内科, 3日本心臓血管研究振興会附属篠原記念病院臨床工学技士, 4日本心臓血管研究振興会附属篠原記念病院小児循環器内科, 5日本心臓血管研究振興会附属篠原記念病院小児循環器外科

M4-6 植込み型除作動器の抗頻拍ベーシングに起因した心室頻拍加速現象について
木田博太1, 古川善郎2, 菊池総佳1, 川崎真佐登2, 山田貴久2, 福並正則2
1大阪府立急性期・総合医療センター臨床工学室, 2大阪府立急性期・総合医療センター心臓内科
Room 4  8:30-9:30 Final Selection Committee for the Academic Excellence Award of the JSE [AW2]

Committee Chair
Akiko Chishaki
Faculty of Medical Sciences Department of Health Sciences, Kyushu University, Fukuoka, Japan

Committee Members
Atsushi Sugiyama
Department of Pharmacology, Toho University, Tokyo, Japan
Naohiko Takahashi
Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan
Hiroshi Tada
Department of Cardiovascular Medicine, Faculty of Medical Sciences, University of Fukui, Fukui, Japan
Kaoru Tanno
Department of Cardiology, Showa University Koto Toyosu Hospital, Tokyo, Japan
Nobuhisa Hagiwara
Department of Cardiology, Tokyo Women’s Medical University, Tokyo, Japan
Eiichi Watanabe
Department of Cardiology, Fujita Health University, Aichi, Japan

AW2-1  Nonsense-Mediated mRNA Decay due to a CACNA1C Splicing Mutation in a Patient with Brugada Syndrome

Megumi Fukuyama¹, Seiko Ohno¹, Qi Wang¹, Takeshi Shirayama², Hideki Itoh¹, Minoru Horie¹
¹Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Shiga, Japan, ²Division of Cardiovascular Medicine, Kyoto Prefectural University of Medicine, Kyoto, Japan

AW2-2  Inhibition of N-type Ca²⁺ Channels Ameliorates an Imbalance in Cardiac Autonomic Nerve Activity and Prevents Lethal Arrhythmias in Mice with Heart Failure

Yuko Yamada¹,², Hideyuki Kinoshita¹,², Koichiro Kuwahara¹,², Yasuaki Nakagawa¹,², Yoshihiro Kuwabara¹,², Takeya Minami¹,², Chinatsu Yamada¹,², Junko Shibata¹,², Kazuhiro Nakao¹,²,³, Kosai Cho³,⁴, Yuji Arai³, Shinji Yasuno³, Toshio Nishikimi¹,²,³, Kenji Ueshima⁴, Shiro Kamakura⁵, Motohiro Nishida⁶, Shigeki Kiyonaka⁷, Yasuo Mori⁷, Takeshi Kimura³, Kenji Kangawa⁸,¹⁰, Kazuwa Nakao¹,¹¹
¹Department of Medicine and Clinical Science, Kyoto University Graduate School of Medicine, Kyoto, Japan, ²Department of Peptide Research, Kyoto University Graduate School of Medicine, Kyoto, Japan, ³Department of Cardiovascular Medicine, Kyoto University Graduate School of Medicine, Kyoto, Japan, ⁴Department of EBM Research, Institute for Advanced of Clinical and Translational Science, Kyoto University Hospital, Kyoto, Japan, ⁵Department of Primary Care and Emergency Medicine, Kyoto University Graduate School of Medicine, Kyoto, Japan, ⁶Department of Bioscience and Genetics, National Cerebral and Cardiovascular Center Research Institute, Osaka, Japan, ⁷Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan, ⁸Division of Cardiocirculatory Signaling, Okazaki Institute for Integrative Bioscience(National Institute for Physiological Sciences), National Institute for Natural Sciences, Aichi, Japan, ⁹Department of Synthetic Chemistry and Biological Chemistry, Kyoto University Graduate School of Engineering, Kyoto, Japan, ¹⁰Department of Biochemistry, National Cerebral and Cardiovascular Center Research Institute, Osaka, Japan, ¹¹Medical Innovation Center, Kyoto University Graduate School of Medicine, Kyoto, Japan
Long-Term Follow-Up after Catheter Ablation of Paroxysmal Atrial Fibrillation: The Incidence of Recurrence and Progression of Atrial Fibrillation

Masateru Takigawa1,3,4, Atsushi Takahashi1, Taishi Kuwahara1, Kenji Okubo1, Yoshihide Takahashi1, Yuji Watari1, Katsumasa Takagi1, Tadashi Fujino1, Shigeki Kimura1, Hiroyuki Hikita1, Makoto Tomita2, Kenzo Hirao3, Mitsuaki Isobe4
1Cardiovascular Center, Yokosuka Kyosai Hospital, Kanagawa, Japan, 2Clinical Research Center, Tokyo Medical and Dental University, Tokyo, Japan, 3Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan, 4Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan

Electrocardiographic Parameters and Fatal Arrhythmic Events in Patients with Brugada Syndrome: Combination of Depolarization and Repolarization Abnormalities

Koji Tokioka1, Kengo F. Kusano2, Hiroshi Morita1, Daiji Miura1, Nobuhiro Nishii1, Satoshi Nagase1, Kazufumi Nakamura1, Kunihisa Kohno1, Hiroshi Ito1, Tohru Ohe3
1Department of Cardiovascular Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Science, Okayama, Japan, 2Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan, 3Sakakibara Heart Institute of Okayama, Okayama, Japan
### Room 4 9:30-11:30 JHRS-JSE-EHRA Joint Symposium [JEJ]

## New Technology Ablation ★

| Chairs | Pierre Jais  
| University of Bordeaux, France |
| Ken Okumura  
| Department of Cardiology, Hirosaki University Graduate School of Medicine, Aomori, Japan |

#### JEJ1

**One-year clinical outcome after pulmonary vein isolation using the second-generation 28mm cryoballoon**

Andreas Metzner  
Asklepios Klinik St. Georg, Germany

#### JEJ2

**Cryoballoon ablation for Japanese patients: Preliminary reports from Japanese PMS**

Teiichi Yamane, Seiichiro Matsuo, Ken-ichi Tokutake, Ken-ichi Yokoyama, Ryosuke Narui, Mika Kato, Michifumi Tokuda, Michihiro Yoshimura  
Department of Cardiology, Jikei University School of Medicine, Tokyo, Japan

#### JEJ3

**Catheter ablation guided by cardiac MRI**

Christopher Piorkowski  
Heart Center Dresden University, Germany

#### JEJ4

**Catheter ablation using photodynamic therapy**

Seiji Takatsuki, Takehiro Kimura, Keiichi Fukuda  
Department of Cardiology, Keio University School of Medicine, Tokyo, Japan

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*Thursday, 30 July*
Tips and tricks of AdaptivCRT in clinical practice

Chair  Yukihiko Yoshida  
Cardiovascular Center, Nagoya Daini Red Cross Hospital, Aichi, Japan

LS16-1  Tips and tricks of AdaptivCRT in clinical practice
Takashi Noda  
Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan  
(Medtronic Japan Co., Ltd.)
Room 4 | 14:10-15:10 Sweets Seminar3 [TS3]

The Current Situation of Diagnostic Care Pathways in Unexplained Syncope ★

Chair: Haruhiko Abe
Department of Heart Rhythm Management, University of Occupational and Environment Health, Fukuoka, Japan

TS3-1 To Implant? Or Not Implant?: The Current Usage of ILRs According to a Nationwide Survey of Cardiologists on Unexplained Syncope Diagnosis
Ritsuko Kohno
Department of Heart Rhythm Management, University of Occupational and Environmental Health, Fukuoka, Japan

TS3-2 Developing an Optimal Care Pathway for Diagnosis of Unexplained Syncope
David G. Benditt
Cardiac Arrhythmia Center, Cardiovascular Division, University of Minnesota, USA

(Medtronic Japan Co., Ltd.)
Room 4  15:10-16:40 JHRS-JSE-JACR Joint Symposium [JAJ]

Arrhythmia and Cardiac Rehabilitation—Evidence and Future Perspective of Exercise Therapy—

Chairs  Youichi Kobayashi  
Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan
Akira Yamashina  
Department of Cardiology, Tokyo Medical University, Tokyo, Japan

JAJ1  Relation of physical activity to risk of atrial fibrillation  
Mikiko Nakagawa, Takanori Yamaguchi, Naohiko Takahashi  
Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan

JAJ2  How to deal with the problems during cardiac rehabilitation and to maximize its effects in the patients with ICD or CRT-D?  
Takeshi Mitsuhashi, Nahoko Ikeda, Yoshitaka Sugawara, Shin-ichi Momomura  
Cardiovascular Medicine, Saitama Medical Center, Jichi Medical University, Saitama, Japan

JAJ3  Beneficial effects of exercise-based cardiac rehabilitation for long-term prognosis in patients with device implantation  
Shinji Koba, Mitsuharu Kawamura, Miwa Kikuchi, Yuya Yokota, Fumiaki Furuyama, Yumi Munetsugu, Makoto Shoji, Taku Asano, Kaoru Tanno, Youichi Kobayashi  
1The Department of Medicine, Division of Cardiology, Showa University School of Medicine, Tokyo, Japan, 2The Department of Medicine, Division of Cardiology, Showa University Koto Toyosu Hospital, Tokyo, Japan

JAJ4  The effects of exercise training on arrhythmia: Case Presentation and literature review  
Hirokazu Shiraishi, Tetsuro Hamaoka, Mikimasa Imai, Akira Kuroyanagi, Takeshi Shirayama  
The Department of Cardiovascular Medicine, Kyoto Prefectural University of Medicine, Kyoto, Japan
Room 5  8:30-9:30 Oral Presentation [O24]

VT 4★

Chairs
Yuichiro Kawamura
Health Administration Center, Asahikawa Medical University, Hokkaido, Japan
Kyoko Soejima
Department of Cardiology, Kyorin University Hospital, Tokyo, Japan

O24-1 Delayed Success Following Catheter Ablation for Premature Ventricular Complexes
Takeshi Kitamura, Seiji Fukamizu, Kiyotaka Yoshida, Satoshi Miyazawa, Iwanari Kawamura, Akihiro Nakada, Yuichi Moriyama, Ken Araii, Toshiki Kairaha, Rintaro Hojo, Yuya Aoyama, Kota Komiyama, Tamotsu Tejima, Mitsuhiro Nishizaki, Harumizu Sakurada, Masayasus Hiraoka
1Department of Cardiology, Tokyo Metropolitan Hiroo Hospital, Tokyo, Japan, 2Department of Cardiology, Yokohama Minami Kyoai Hospital, Kanagawa, Japan, 3Tokyo Metropolitan Health and Medical Treatment Corporation Ohkubo Hospital, Tokyo, Japan, 4Toride Kitasoma Medical Center Hospital, Ibaraki, Japan

O24-2 Late LAD stenosis after Ventricular tachycardia ablation
Haruo Mitani, Manabu Moriya, Sugao Ishiwata, Minoru Ohno
Cardiovascular Center Toranomon Hospital, Tokyo, Japan

O24-3 Usefulness of contact force-sensing catheter for ablation of the premature ventricular complexes originating from the left ventricular papillary muscle
Eiichiro Nakagawa, Kenji Shimeno, Kanako Akamatsu, Syunsuke Kagawa, Tsukasa Matsushita, Tomotaka Yoshiyama, Astuko Fufukawa, Kei Yunoki, Yukio Abe, Ryushi Komatsu, Takahiko Naruko
Department of Cardiology, Osaka City General Hospital, Osaka, Japan

O24-4 Circadian Variation of Ventricular Tachycardia in Cardiomyopathy was Associated with Instability of Repolarization
Minoru Nodera, Hitoshi Suzuki, Masashi Kamioka, Takashi Kaneshiro, Yoshiyuki Kamiyama, Yasuchika Takeishi
Department of Cardiology and Hematology, Fukushima Medical University, Fukushima, Japan

O24-5 Arrhythmogenic Substrate in Hemorrhagic Shock-Induced Heart and Comparable Effect of Different Artificial Oxygen Carriers
Bonpei Takase, Yuko Higashimura
Department of Intensive Care Medicine, National Defense Medical College, Saitama, Japan
**Room 5  9:30-10:30 Oral Presentation [O25]**

**VT 5**

**Chairs**

Masahiko Goya  
*Department of Cardiology, Tokyo Medical and Dental University, Tokyo, Japan*

Hiroshi Furusho  
*Department of Cardiology, Kanazawa University Hospital, Ishikawa, Japan*

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**O25-1**  
**Estimation of the Origin of Ventricular Arrhythmia Using Synthesized 18-Lead Electrocardiography: Differentiating between the para-Hisian Region and the Right Coronary Cusp**

Masahiro Nakano¹, Koji Kumagai², Shigeto Naito², Kohki Nakamura², Eri Goto², Satoru Shimizu², Toshiaki Yano², Daisuke Kutsuzawa², Yoshiaki Yamaguchi², Kentaro Minami², Taketo Sasaki², Marehiko Ueda¹, Yoshio Kobayashi¹

¹*Department of Cardiovascular Medicine, Chiba University Graduate School of Medicine, Chiba, Japan, ²Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan*

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**O25-2**  
**Distance to the origin, not the earliness activation or pacemap, determines a cure of ventricular tachyarrhythmias: A distinct subgroup of outflow tachyarrhythmias**

Kaori Hisazaki, Kenichi Kaseno, Naoki Amaya, Daisetsu Aoyama, Kanae Hasegawa, Yuichiro Shiomi, Naoto Tama, Hiroyuki Ikeda, Takehiko Sato, Yoshitomo Fukuoka, Tetsuji Morishita, Kentaro Ishida, Hiroyasu Uzui, Hiroshi Tada  
*Department of Cardiovascular Medicine, Faculty of Medical Sciences, University of Fukui, Fukui, Japan*

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**O25-3**  
**Characteristics of idiopathic right ventricular outflow tract type ventricular arrhythmias originating from septal intramural foci**

Yoshihiro Yamashina, Tetsuo Yagi, Akihiko Ishida, Yoshiaki Mibiki, Hirokazu Sato, Takashi Nakagawa, Eiji Sato, Juri Komatsu  
*Division of Cardiology, Sendai City Hospital, Miyagi, Japan*

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**O25-4**  
**Epicardial ablation in patients with drug-refractory ventricular tachycardia and structural heart diseases**

Muryo Terasawa¹, Kazuhiro Satomi¹, Ken Takarada³, Yoshinao Yazaki³, Yoshinari Goseki³, Kengo Kusano³, Akira Yamashina³  
¹*Cardiovascular Medicine Tokyo Medical University Hachioji Medical Center, Tokyo, Japan, ³National Cerebral and Cardiovascular Center Hospital, Osaka, Japan, ²Tokyo Medical University Hospital, Tokyo, Japan*
The effectiveness and the safety of epicardial radiofrequency catheter ablation for ventricular tachycardia refractory to endocardial catheter ablation

Hiroshi Imada, Koji Fukuzawa, Akihiro Yoshida, Tomoyuki Nakanishi, Soichiro Yamashita, Akinori Matsumoto, Hiroki Konishi, Hirotoshi Ichibori, Kiyohiro Hyogo, Ken-ichi Hirata

Department of Internal Medicine, Division of Cardiovascular Medicine, Kobe University Graduate School of Medicine, Hyogo, Japan
Room 5  10:30-11:30 Oral Presentation [O26]

VT 6
Chairs  
Kaoru Tanno  
*Department of Cardiology, Showa University Koto Toyosu Hospital, Tokyo, Japan*

Shingo Sasaki  
*Department of Advanced Management of Cardiac Arrhythmias, Hirosaki University School of Medicine, Aomori, Japan*

**O26-1**  
Scar related reentrant ventricular tachycardia just below the mechanical aortic valve  
Emi Nakano, Tomoo Harada, Yui Nakayama, Marika Yamada, Yasushi Takagi, Makoto Takano, Toshiyuki Furukawa, Yoshiiro Akashi  
*Division of Cardiology, Department of Internal Medicine, St. Marianna University School of Medicine, Kanagawa, Japan*

**O26-2**  
A case of a idiopathic narrow QRS ventricular tachycardia originating from left ventricle  
Miwa Miyoshi, Hajime Saeki, Takashi Mukai, Tomoka Tabata, Yasuhiro Inui, Miho Kuramoto, Shumpei Kosugi, Masami Nakagawa, Nobuyuki Ogasawara, Yusuke Kobayashi, Shinji Hasegawa  
*JCHO Osaka Hospital, Osaka, Japan*

**O26-3**  
A Case Report; Prolonged Overdrive Ventricular Pacing Suppressed and Overcame Electrical Storm Associated with Myocardial Infarction  
Saori Tsukuda, Keisuke Okawa, Fumi Yokohama, Tomoyuki Nishibe, Masahiro Sogo, Kazumasa Nosaka, Masahito Kajiya, Keichi Mashima, Masayuki Doi, Kou Takeda  
*The Department of Cardiovascular Internal Medicine, Kagawa Prefectural Central Hospital, Kagawa, Japan*

**O26-4**  
Efficacy of high density mapping with the multipolar catheter for recurrent ventricular premature contraction arising from aortic sinus cusp: A case report  
Hiroaki Nakamura, Makoto Araki, Noboru Ichihara, Takamitsu Takagi, Jin Iwasawa, Akio Kuroi, Shinsuke Miyazaki, Hiroshi Taniguchi, Hitoshi Hachiya, Yoshito Iesaka  
*Division of Cardiology, Cardiovascular Center, Tsuchiura Kyodo Hospital, Ibaraki, Japan*

**O26-5**  
A case of ventricular fibrillation possibly associated with Brugada syndrome or anomalous aortic origin of right coronary artery from left coronary sinus  
Naotaka Okamoto, Yasuyuki Egami, Nobuhiko Makino, Ryu Shutta, Masami Nishino  
*The Division of Cardiology, Osaka Rosai Hospital, Osaka, Japan*
Advancing AF Management in CRT Patients ★

Chair  Kengo Kusano
Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan

LS17-1  Advancing AF Management in CRT Patients
Christopher Piorkowski
Department of Electrophysiology, University of Dresden-Heart Center, Dresden, Germany

(BIOTRONIK JAPAN)
Room 5  14:10-15:10 Oral Presentation [O27]

CRT 1

Chairs  Akihiko Yotsukura  
Department of Cardiology, Hokko Memorial Hospital, Hokkaido, Japan
Toshihiro Nakamura  
Department of Cardiology, NHO Kyushu Medical Center, Fukuoka, Japan

O27-1  Difficulty of LV lead implantation to optimal position of coronary sinus  
Yoshifumi Ikeda, Ritsushi Kato, Takahiko Nagase, Yuichiro Shiki, Sayaka Tanaka, Naoko Yozawa, Shigeyuki Nishimura, Kazuo Matsumoto  
The Department of Cardiology, Saitama Medical University International Medical Center, Saitama, Japan

O27-2  Inappropriate detection of intraventricular conduction delay as lead failure due to increase of the sensing integrity counter in a patient with cardiac resynchronization therapy defibrillator  
Kentaro Ozu, Hitoshi Minamiguchi, Hiroya Mizuno, Shozo Konishi, Tomoaki Nakano, Tomohito Ohtani, Yuji Okuyama, Osamu Yamaguchi, Yasushi Sakata  
Department of Cardiovascular Medicine Osaka University Graduate School of Medicine, Osaka, Japan

O27-3  Effect of minimized RV pacing and dynamic adaptation of AV/VV delay algorithm in cardiac resynchronization therapy: Primary experience of Adaptive CRT  
Shingo Sasaki¹, Takahiko Kinjo², Yuji Ishida³, Taihei Ito¹, Kenichi Sasaki¹, Daisuke Horiuchi², Masaomi Kimura², Ken Okumura³  
¹Department of Advance Management of Cardiac Arrhythmias, Hirosaki University School of Medicine, Aomori, Japan, ²Department of Cardiology, Hirosaki University School of Medicine, Aomori, Japan

O27-4  The Impact of Cardiac Resynchronized Therapy to Dilated-Phase Hypertrophic Cardiomyopathy and The Prognostic Analysis After Implantation  
Tomoaki Nakano, Hitoshi Minamiguchi, Hiroya Mizuno, Shozo Konishi, Kentaro Ozu, Tomohito Ohtani, Osamu Yamaguchi, Yuji Okuyama, Yasushi Sakata  
Department of Cardiovascular Medicine, Osaka University Graduate School of Medicine, Osaka, Japan

O27-5  Impact of Relative Positions of RV and LV Leads on Long-Term Prognosis for CRT-D  
Hiroyuki Kato¹, Yasuya Inden¹, Tadahiro Ito¹, Yoshiaki Mizutani¹, Tomoyuki Nagao¹, Satoshi Okumura¹, Satoshi Yanagisawa¹, Toshihiko Yamamoto¹, Shinji Ishikawa¹, Naoki Yoshida¹, Makoto Hirai¹, Toyoaki Murohara¹  
¹Department of Cardiology, Nagoya University Graduate School of Medicine, Aichi, Japan, ²Nagoya University School of Health Sciences, Aichi, Japan
O28-1 Time course of systolic and diastolic dyssynchrony assessed by gated myocardial perfusion single-photon emission computed tomography in patients undergoing cardiac resynchronization therapy

Rintaro Hojo¹, Seiji Fukamizu¹, Kiyotaka Yoshida¹, Akihiro Nakada¹, Iwanari Kawamura¹, Ken Arai¹, Toshiki Kairara¹, Satoshi Miyazawa¹, Mikihiro Asaki¹, Takeshi Kitamura¹, Yuya Aoyama¹, Kota Komiyama¹, Tamotsu Tejima¹, Mitsuhiro Nishizaki², Masayasu Hiraoka³, Harumizu Sakurada⁴

¹The Department of Cardiology, Tokyo Metropolitan Hiroo Hospital, Tokyo, Japan, ²Yokohama Minami Kyousai Hospital, Kanagawa, Japan, ³Toride Kitasohma Medical Center Hospital, Ibaraki, Japan, ⁴Tokyo Metropolitan Health and Medical Treatment Corporation Ohkubo Hospital, Tokyo, Japan

O28-2 Early improvement of dyssynchrony after CRT will achieve a late volumetric response of the left ventricle

Tadahiro Ito, Yasuya Inden, Tomoyuki Nagao, Yoshiaki Mizutani, Satoshi Okumura, Hiroyuki Kato, Satoshi Yanagisawa, Toshihiko Yamamoto, Shinji Ishikawa, Naoki Yoshida, Masato Hirai, Toyoaki Murohara

Department of Cardiology, Nagoya University, Aichi, Japan

O28-3 QRS Width of Left Ventricular Pacing in Patients with Cardiac Resynchronization Therapy

Akinori Sato¹, Naoko Ishida¹, So Otsuki¹, Yuki Hasegawa¹, Nobue Yagihara¹, Daisuke Izumi¹, Takahito Hayakawa¹, Takashi Okada¹, Susumu Hasegawa¹, Hiroshi Watanabe¹, Tohru Minamino¹

¹Department of Cardiovascular Biology and Medicine, Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan, ²Department of Medical Engineer, Niigata University Medical and Dental Hospital, Niigata, Japan

O28-4 Long-term Use Results of Adaptive Servo-Ventilation Therapy for Severe Chronic Heart Failure Patients with Cardiac Resynchronization Therapy

Taro Adachi¹, Kaoru Tanno¹, Ko Ogawa¹, Yuya Nakamura¹, Akinori Ochi¹, Koichiro Inokuchi¹, Yuta Chiba¹, Shiro Kawasaki¹, Yoshimi Onishi¹, Yoshimasa Onuma¹, Yumi Munetsugu¹, Miwa Kikuchi¹, Tatsuya Onuki¹, Fumito Miyoshi¹, Norikazu Watanabe¹, Yoshino Minoura¹, Mitsuharu Kawamura¹, Taku Asano¹, Youichi Kobayashi¹

¹Department of Medicine, Division of Cardiology, Showa University School of Medicine, Tokyo, Japan, ²Division of Cardiology, Kato-Toyosu Hospital, Showa University School of Medicine, Tokyo, Japan
Temporal bi-ventricular pacing provides practical information on issues regarding CRT implantation

Yuki Kimura, Moritoshi Funasako, Tetsuya Haruna, Takao Kato, Eisaku Nakane, Shoichi Miyamoto, Toshiaki Izumi, Moriaki Inoko

Cardiovascular Center, Kitano Hospital, The Tazuke Kofukai Medical Research Institute, Osaka, Japan
Remote Monitoring

**O29-1** Remote Monitoring Can Detect Asymptomatic Heart Failure Progression in Patients with Cardiac Resynchronization Therapy – Does It Improve the Outcome?

Kentarou Okuda¹, Tomohide Ichikawa¹, Masahide Harada¹, Masayuki Koshikawa¹, Mayumi Yamamoto¹, Yoshihiro Sobue¹, Asami Fujiwara², Keisuke Tsujikawa¹, Masaru Yamamoto², Eiichi Watanabe³, Yukio Ozaki³

¹Department of Cardiology, Fujita Health University School of Medicine, Aichi, Japan, ²Joint Research Laboratory of Clinical Medicine, Fujita Health University, Aichi, Japan

**O29-2** Major First Manifestation of Lead Failure is Arrhythmic Events in Patients Followed by Remote Monitoring

Nobuhiro Nishii¹, Ryo Ueoka², Akihito Miyoshi², Motoki Kubo², Hiroyasu Sugiyama³, Koji Nakagawa¹, Satoshi Nagase¹, Hiroshi Morita¹, Hiroshi Ito¹

¹Department of Cardiovascular Therapeutics, Okayama University Hospital, Okayama, Japan, ²Department of Cardiovascular Medicine, Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama, Japan

**O29-3** Usefulness of remote monitoring of epicardial leads in congenital heart disease

Tomomi Nishimura¹, Keiko Toyohara¹, Tsutomu Wada¹, Yoshimichi Kudou¹, Daiji Takeuchi¹, Tetsuyuki Manaka¹, Morio Shoda¹, Toshio Nakanishi¹

¹Department of Pediatric Cardiology, Tokyo Women’s Medical University, Tokyo, Japan, ²Department of Cardiology, Tokyo Women’s Medical University, Tokyo, Japan

**O29-4** Invalid Cases in Remote Monitoring System at One Faculty

Yoshinao Sugai¹, Kentaro Aizawa¹, Hayato Shindo², Kohei Fukahori¹, Satoru Takeda¹, Etsuko Fushimi¹, Toshiaki Takahashi¹, Satoru Horiguchi¹, Tohru Sakata¹, Kazuma Tomiki¹, Noriaki Ando²

¹Department of Cardiology, JA Akita Kouseiren Hiraka General Hospital, Akita, Japan, ²Department of Medical Engineering, JA Akita Kouseiren Hiraka General Hospital, Akita, Japan

**O29-5** Efficacy and safety of very long term remote monitoring for pacemaker recipients

Satoshi Kawada, Sho Tsushima, Shinpei Fujita, Tomofumi Mizuno

Cardiovascular Medicine, Fukuyama City Hospital, Hiroshima, Japan
Efficacy of Remote Monitoring System in Heart Failure Patients with Cardiac Implantable Electronic Device

Makoto Takano, Tomoo Harada, Yasushi Takagi, Marika Yamada, Emi Nakano, Yukako Takimura, Hisao Matsuda, Satoru Nishio, Toshiyuki Furukawa, Hidekazu Miyazaki, Naoki Matsumoto, Yoshihiro Akashi

The Department of Cardiology, St. Marianna University School of Medicine, Kanagawa, Japan
薬剤師として知っておきたい抗不整脈薬・抗凝固薬の基礎知識

座長
上野和行
新潟薬科大学薬学部薬物動態学研究室
新　博次
日本医科大学多摩永山病院

開会の言葉
上野和行
新潟薬科大学薬学部薬物動態学研究室

OL1 抗不整脈薬：薬理作用から見た安全な使い方
栗田隆志
近畿大学医学部附属病院心臓血管センター

OL2 抗不整脈薬の薬物動態とTDMの要点
志賀　剛
東京女子医科大学循環器内科

OL3 心房細動における適切な抗凝固療法
―新規経口抗凝固薬とワルファリンの使い分け―
矢坂正弘
国立病院機構九州医療センター脳血管・神経内科

まとめ
新　博次
日本医科大学多摩永山病院

（第一三共株式会社）
CRT 3

Chairs
Keiji Yamamoto
Department of Cardiology, Saitama Medical University Hospital, Saitama, Japan
Kenji Ando
Department of Cardiology, Kokura Memorial Hospital, Fukuoka, Japan

O30-1 Impact of catheter ablation for atrial tachyarrhythmia on inappropriate shocks in patients with implantable cardioverter defibrillator and cardiac resynchronization therapy-defibrillator
Kentaro Minami, Kohki Nakamura, Shigeto Naito, Eri Goto, Daisuke Kutsuzawa, Yoshiaki Yamaguchi, Satoru Shimizu, Toshiaki Yano, Masahiro Nakano, Takehito Sasaki, Koji Kumagai, Shigeru Oshima
Gunma Cardiovascular Center, Gunma, Japan

O30-2 Lethal arrhythmic episodes and the cause of death after the implantation of CRT-P
Ikuko Togashi, Toshiaki Sato, Kyoko Soejima, Akiko Ueda, Yosuke Miwa, Satoshi Higuchi, Kyoko Hoshida, Noriko Matsushita, Yuichi Momose, Hideaki Yoshino
Department of Cardiology, Kyorin University School of Medicine, Tokyo, Japan

O30-3 Influence of device optimization on electrocardiographic changes in cardiac resynchronization therapy
Yuko Toyoshima, Koichi Inoue, Koji Tanaka, Takafumi Oka, Nobuaki Tanaka, Yoshiyuki Orihara, Katsuomi Iwakura, Kenshi Fujii
Cardiovascular Center, Sakurabashi-Watanabe Hospital, Osaka, Japan

O30-4 Long-term Follow-up Data of Echocardiography in Patients Implanted with Cardiac Resynchronization Therapy Defibrillator
Kazunori Kashiwase, Ryoei Amiya, Masato Okada, Akio Hirata, Yasunori Ueda
Cardiovascular Division, Osaka Police Hospital, Osaka, Japan

O30-5 A Case Report of a Successful CRT-D Implantation in a Patient with Corrected Transposition of Great Arteries; A Long Term Survival Case
Hideaki Sato, Mikio Yuhara, Masafumi Nakayama, Takashi Uchiyama
Toda Chuo General Hospital, Saitama, Japan
CRT 4★

**O31-1 Restoration of ventricular septal hypoperfusion by cardiac resynchronization therapy in patients with permanent right ventricular pacing**

Michio Ogano¹, Yu-ki Iwasaki², Jun Tanabe¹, Kenji Yodogawa², Meiso Hayashi², Yasushi Miyauchi², Wataru Shimizu²

¹Department of Cardiovascular Medicine, Shizuoka Medical Center, Shizuoka, Japan, ²Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan

**O31-2 Efficacy of Cardiac Resynchronization Therapy in Elderly Patients**

Hideya Suehiro¹, Kazumasa Adachi¹, Yasutaka Hirayama¹, Takeshi Matsuura¹, Tomomi Akita¹, Yukinori Kato¹, Hiroki Takata¹, Kohei Kameshita¹, Akira Matsuura¹, Masahito Kawata¹, Susumu Sakamoto¹, Rieko Tsuboi², Kenji Fukui²

¹Division of Cardiology, Akashi Medical Center, Hyogo, Japan, ²Division of Clinical Engineering, Akashi Medical Center, Hyogo, Japan

**O31-3 Can Cardiac Resynchronization Therapy be a Rescue Therapy for Inotrope-Dependent Advanced Heart Failure?**

Teruhiko Imamura¹, Koichiro Kinugawa¹, Osamu Kinoshita², Kan Nawata², Minoru Ono²

¹Department of Therapeutic Strategy for Heart Failure, Graduate School of Medicine, University of Tokyo, Tokyo, Japan, ²Department of Cardiac Surgery, Graduate School of Medicine, University of Tokyo, Tokyo, Japan

**O31-4 Evaluation of outcome for the timing of CRT implantation**

Yoshiyuki Doi, Satoki Fukae, Takashi Ishimatsu, Shuji Arakawa, Youichi Tomichi, Hiroaki Kawano, Koji Maemura

Department of Cardiovascular Medicine, Nagasaki University Hospital, Nagasaki, Japan

**O31-5 The long-term prognosis of cardiac resynchronization therapy can be predict by Body-surface QRST integral mapping**

Go Haraguchi, Masatsugu Ohe, Eiichi Takii, Shogo Ito, Jun Kumanomido, Hisashi Adachi, Yoshihiro Fukumoto

Department of Internal Medicine, Division of Cardia-Vascular Medicine, Kurume University School of Medicine, Fukuoka, Japan
Room 6  10:30-11:30 Oral Presentation [O32]

Imaging 1

Chairs  Hirosuke Yamaji  
Heart Rhythm Center, Okayama Heart Clinic, Okayama, Japan  
Kiyoshi Ohtomo

O32-1  Associations between Biatrial Total Activation Time and the Atrial Electromechanical Interval Determined by Transthoracic Echocardiography

Yoshiyuki Hama1, Haruka Fujimaki1, Taishi Kuwahara2, Noriko Eguchi3, Ikuto Terabayashi1, Kohei Kamishita1, Bi Katsu1, Shuzo Tanaka1, Norimasa Tonoike1, Kyokushi Hou1, Tai Sekine1, Yuji Matsudo1, Masashi Yamamoto1, Toshiharu Himi1  
1Division of Cardiology, Kimitsu Chuo Hospital, Chiba, Japan, 2Cardiovascular Center, Yokosuka Kyousai Hospital, Kanagawa, Japan

O32-2  The association between left atrial remodeling assessed by cardiac magnetic resonance imaging and recurrence of atrial fibrillation in patients underwent AF ablation

Yu Kumagai, Tadateru Iwayama, Takanori Arimoto, Naoaki Hashimoto, Daisuke Ishigaki, Tetsu Watanabe, Isao Kubota  
Department of Cardiology, Pulmonology, and Nephrology, Yamagata University School of Medicine, Yamagata, Japan

O32-3  Contrast filling defect in the left atrial appendage on cardiac CT image in patients undergoing catheter ablation for atrial fibrillation: Its causative factor and interpretation

Kenichi Sasaki, Shingo Sasaki, Masaomi Kimura, Daisuke Horiuchi, Taihei Itoh, Yuji Ishida, Takahiko Kinjo, Ken Okumura  
Department of Cardiology, University of Hirosaki, Aomori, Japan

O32-4  Differences in prevalence and degree of the abnormal early systolic contraction in left bundle branch block with and without prolonged QRS duration (≥150 ms)

Hideyuki Hara1, Toyoji Kaida2, Ai Horiguchi2, Nobuhiro Sato2, Horoshi Ito1, Shinichi Niwano2, Junya Ako2  
1Cardiology, Numazu City Hospital, Shizuoka, Japan, 2Department of Cardiovascular Medicine, Kitasato University School of Medicine, Kanagawa, Japan
The Diagnostic Value of Positron Emission Tomography in Patients with Cardiac Sarcoidosis

Koji Higuchi, Hirotaka Muramoto, Atsushi Suzuki, Yuya Utsugi, Sawa Matsumoto, Keiko Tachibana, Takayuki Onishi, Isshi Kobayashi, Yuko Onishi, Shigeo Umezawa, Akihiro Niwa, Kenzo Hirao

1Department of Cardiology, Hiratsuka Kyosai Hospital, Kanagawa, Japan, 2Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan
Sleep Apnea Syndrome and Arrhythmia

Chair: Kaoru Sugi  
Division of Cardiovascular Medicine, Toho University Ohashi Medical Center, Tokyo, Japan

LS18-1 Sleep Apnea Syndrome and Arrhythmia  
Chikashi Suga  
Suga Clinic / Division of Cardiovascular Medicine, Saitama Medical Center, Jichi Medical University, Saitama, Japan  
(Philips Respironics GK)
Thursday, 30 July

Room 6   14:10-15:10 Oral Presentation [O33]

Experimental Study 2

Chairs  
Katsushige Ono  
Department of Pathophysiology, Oita University School of Medicine, Oita, Japan  
Jong-kook Lee  
Department of Cardiovascular Regenerative Medicine, Osaka University Graduate School of Medicine, Osaka, Japan

O33-1  
Analysis of trajectory of phase singularity with spatial heterogeneity of myocardial intracellular Ca2+ signal duration
Norifusa Tachiyanagi1, Tatsuhiko Arafune2, Hiroo Noguchi1, Nitaro Shibata3, Takashi Ogawa1, Masatoshi Yamazaki3, Haruo Honjo1, Kaichiro Kamiya3, Akihiko Homma1, Akio Funakubo1  
1School of Science and Engineering, Tokyo Denki University, Tokyo, Japan, 2Shinjuku Mitsui Building Clinic, Tokyo, Japan, 3Research Institute of Environmental Medicine, Nagoya University, Aichi, Japan

O33-2  
Role of impedance monitoring during Bipolar (Bi) radiofrequency ablation (RF). Observations from the experimental study
Osamu Saitoh1, Katsuya Suzuki2, Kana Oya1, Asami Kashiwa1, Yukio Hosaka1, Hiroshi Furushima1, Masaomi Chinushi1  
1Graduate School of Health Sciences, Niigata University, Niigata, Japan, 2Kido Hospital, Niigata, Japan, 3Niigata City General Hospital, Niigata, Japan, 4Furushima Clinic, Niigata, Japan

O33-3  
Dynamical mechanisms of phase 2 early afterdepolarizations in long QT syndromes: Insights from slow-fast decomposition analysis of mathematical models for human ventricular myocytes
Yasutaka Kurata1, Ichiro Hisatome2  
1Department of Physiology, Kanazawa Medical University, Ishikawa, Japan, 2Division of Regenerative Medicine and Therapeutics, Institute of Regenerative Medicine and Biofunction, Tottori University Graduate School of Medical Science, Tottori, Japan

O33-4  
Long-term follow-up of 110 sporadic cases with arrhythmogenic right ventricular cardiomyopathy
Yoshitaka Kimura1, Takashi Noda, Mitsuru Wada, Ikutaro Nakajima, Kohei Ishibashi, Koji Miyamoto, Hideo Okamura, Takeshi Aiba, Shiro Kamakura, Kengo Kusano  
Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan

O33-5  
High Density Mapping of Post-infarction Cardiomyopathy Using a Multipolar Basket Catheter in a Swine Model
Yasuaki Tanaka, Edward P. Gerstenfeld  
Department of Medicine, Section of Cardiac Electrophysiology, University of California San Francisco, San Francisco, CA, USA
**O34-1** Dose-Sensitive Relationship of an SCN10A Pore Mutation and Enhancer SNPs Identified in a Brugada Syndrome Family with Different Expressivity

Taisuke Ishikawa¹, Kimie Ohkubo², Ryo Yamaguchi³, Daniel T. Harrell¹, Yukiomi Tsuji¹, Ichiro Watanabe², Naomasa Makita¹

¹Department of Molecular Physiology, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, ²Department of Cardiovascular Medicine, Nihon University Graduate School of Medicine, Tokyo, Japan

**O34-2** Patient-Specific Induced Pluripotent Stem-Cell Models for Long QT Syndrome with the missense mutation in the CACNA1C gene

Takeshi Harita¹, Takeru Makiyama¹, Kenichi Sasaki¹, Suguru Nishiuchi¹, Mamoru Hayano¹, Yuta Yamamoto¹, Hirohiko Kohjitanı¹, Jiaron Chen¹, Yimin Wuriyanghai¹, Yoshinori Yoshida², Seiko Ohno², Minoru Horie², Akihiko Shimizu³, Takeshi Kimura¹

¹Kyoto University Graduate School of Medicine, Department of Cardiovascular Medicine, Kyoto, Japan, ²Center for iPSC Cell Research and Application, Kyoto University, Kyoto, Japan, ³Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Shiga, Japan, ⁴Division of Cardiology, Department of Medicine and Clinical Science and Faculty of Health Sciences, Yamaguchi University Graduate School of Medicine, Yamaguchi, Japan

**O34-3** Meta-analysis of Short QT Syndrome discloses genotype-dependent clinical characteristics in age of manifestation and arrhythmia complications

Daniel T. Harrell¹, Takashi Ashihara², Taisuke Ishikawa³, Andrea Mazzanti³, Kazuhiro Takahashi⁴, Yasushi Oginosawa⁵, Haruhiko Abe⁶, Koji Maemura⁷, Naokata Sumitomo⁸, Kikuya Uno⁹, Makoto Takano¹⁰, Silvia G. Priori¹¹, Naomasa Makita¹

¹Department of Molecular Physiology, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, ²Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Heart Rhythm Center, Shiga, Japan, ³Institute of Molecular Cardiology, IRCCS Salvatore Maugeri Foundation, Pavia, Italy, ⁴Department of Pediatric Cardiology, Okinawa Children's Medical Center, Okinawa, Japan, ⁵Second Department of Internal Medicine, University of Occupational and Environmental Health, Fukuoka, Japan, ⁶Department of Heart Rhythm Management, University of Occupational and Environmental Health, Fukuoka, Japan, ⁷Department of Cardiovascular Medicine, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan, ⁸Department of Pediatric Cardiology, Saitama International Medical Center, Saitama, Japan, ⁹Sapporo Heart Center, Hokkaido, Japan, ¹⁰Department of Physiology, Kurume University School of Medicine, Fukuoka, Japan
O34-4  S107 rescues arrhythmogenic phenotype in a patient-specific induced stem cell-based model of catecholaminergic polymorphic ventricular tachycardia

Kenichi Sasaki¹, Takeru Makiyama¹, Yoshinori Yoshida³, Yuta Yamamoto¹, Mamoru Hayano¹, Suguru Nishiuchi¹, Takeshi Harita¹, Yimin Wuriyanghai¹, Jiarong Chen¹, Tsukasa Kamakura¹, Seiko Ohno¹, Minoru Horie¹, Shinya Yamanaka³, Takeshi Kimura¹

¹Department of Cardiovascular Medicine, Kyoto University Graduate School of Medicine, Kyoto, Japan, ²Kyoto University iPS Cell Research and Application, Kyoto, Japan, ³Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Shiga, Japan

O34-5  A novel ACTC1 gene mutation in a young boy with left ventricular noncompaction and lethal ventricular arrhythmias

Yoko Yoshida¹, Shuichiro Yoshida¹, Tsugutoshi Suzuki¹, Yoshihide Nakamura¹, Yukiko Hata¹, Naoki Nishida²

¹Department of Pediatric Electrophysiology, Osaka City General Hospital, Osaka, Japan, ²Department of Legal Medicine, Graduate School of Medicine, University of Toyama, Toyama, Japan
Ion Channel 3

O35-1 Azelnidipine reduces cell-surface expression of Cav1.2 channel
Fumiaki Nasu\textsuperscript{1}, Kazuya Kurakami\textsuperscript{2}, Kuniaki Ishii\textsuperscript{1}
\textsuperscript{1}Department of Pharmacology, Yamagata University, Yamagata, Japan, \textsuperscript{2}Department of Otolaryngology and Neck Surgery, Yamagata University, Yamagata, Japan

O35-2 Phenotype and genotype of SCN5A mutation associated sick sinus syndrome in child
Daiji Takeuchi\textsuperscript{1}, Yoshiyuki Furutani\textsuperscript{1}, Tetsuyuki Manaka\textsuperscript{2}, Keiko Toyohara\textsuperscript{1}, Morio Shoda\textsuperscript{1}, Toshio Nakanishi\textsuperscript{1}
\textsuperscript{1}The Department of Pediatric Cardiology, Tokyo Women’s Medical University, Tokyo, Japan, \textsuperscript{2}The Department of Cardiology, Tokyo women’s Medical University, Tokyo, Japan

O35-3 Enhanced fast-inactivated state stability of cardiac sodium channels by a novel voltage sensor SCN5A mutation R1632C as a cause of multiple electrophysiological phenotypes
Tadashi Nakajima, Yoshiaki Kaneko, Akihiro Saito, Masaki Ota, Takafumi Iijima, Masahiko Kurabayashi
Department of Cardiovascular Medicine, Gunma University Graduate School of Medicine, Gunma, Japan

O35-4 Combination of genetic markers predicts Atrial Fibrillation susceptibility in Japanese population
Lian Liu\textsuperscript{1}, Yusuke Ebana\textsuperscript{1}, Junichi Nitta\textsuperscript{1}, Yoshihide Takahashi\textsuperscript{2}, Shinsuke Miyazaki\textsuperscript{2}, Tetsushi Furukawa\textsuperscript{1}
\textsuperscript{1}Department of Bioinformational Pharmacology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan, \textsuperscript{2}Saitama Red Cross Hospital, Saitama, Japan, \textsuperscript{3}National Disaster Medical Center, Tokyo, Japan, \textsuperscript{4}Tsuchiura Kyodo Hospital, Ibaraki, Japan

O35-5 Cardiac Manifestations of Fabry patients in early stage
Hiromi Goto, Fuji Somura, Yoshiyuki Kataoka, Dai Yamamoto
Nagoya Central Hospital, Aichi, Japan
Thursday, 30 July

Room 7  8:30-9:30 Educational Lecture6 [EL6]

New Technology of CIED ★

Chair  Toshiyuki Ishikawa

Department of Cardiovascular Medicine, Yokohama City University School of Medicine, Kanagawa, Japan

EL6  New Technology of CIED

Oussama Wazni

Cleveland Clinic, USA
Implantable Left Ventricular Assist Device Therapy for Heart Failure—Can It Become an Destination Therapy?

Chair: Hideo Mitamura  
Tachikawa Hospital, Tokyo, Japan

Shunei Kyo¹, Takashi Nishimura¹, Koichiro Kinugawa², Minoru Ono³  
¹Department of Cardiac Surgery, Tokyo Metropolitan Geriatric Hospital and Institute of Gerontology, Tokyo, Japan, ²Department of Therapeutic Strategy for Heart Failure, University of Tokyo Hospital, Tokyo, Japan, ³Department of Cardiothoracic Surgery, University of Tokyo Hospital, Tokyo, Japan
Driving Restriction by Revision of Japan Road and Traffic Law in Patients with Cardiac Arrhythmias

Chair: Masataka Sumiyoshi
Juntendo University Nerima Hospital, Tokyo, Japan

Haruhiko Abe
Department of Heart Rhythm Management, University of Occupational and Environmental Health, Fukuoka, Japan
Clinical Evaluation of a Japan-Made Irrigation Catheter

Chair: Kenzo Hirao
Tokyo Medical and Dental University, Heart Rhythm Center, Tokyo, Japan

LS19-1 Clinical Evaluation of a Japan-Made Irrigation Catheter

Hiroshi Nakagawa
University of Oklahoma Health Sciences Center, USA

(Japan Lifeline Co., Ltd.)
Room 7  14:10-15:10 Educational Lecture9 [EL9]

Five Things to Do for Heart Failure Patients before CRT Implantation

Chair  Shinichi Momomura
Cardiovascular Department, Saitama Medical Center, Jichi Medical University, Saitama, Japan

EL9  Five Things to Do for Heart Failure Patients before CRT Implantation
Yasuki Kihara
Department of Cardiovascular Medicine, Hiroshima University Graduate School of Biomedical and Health Sciences, Hiroshima, Japan
CDR1 ベースメーカ介在性頻拍（PMT）を発症したVDDに対し、設定変更により著明な心不全改善が得られた1例
青木公也, 森田裕介
セント・ジュード・メディカル株式会社

CDR2 1000件に及ぶメドトロニックの電磁干渉調査から見えてきたこと
上総寛人、清水蛍野、伊藤寿昭、藤本 裕
日本メドトロニック株式会社CRHF事業部

CDR3 CIEDs植込み患者の心電図モニタリング時の電磁干渉
高橋聖智1, 原田 照1, 宮崎 隆2
1フクダ電子株式会社, 2株式会社フィデスワン

CDR4 デバイスの環境調査における報告
相沢俊祐、馬場孝成
バイオトニックジャパン株式会社

CDR5 ベースメーカ患者への重粒子放射線治療の影響と対策
小池 裕1, 吉田 聡1, 小川裕之1, 中山雅俊2, 佐野真友2, 渋谷 圭2, 小山佳成2, 金古善明4
1株式会社エムシー, 2群馬大学医学部附属病院ME機器管理室, 3群馬大学重粒子線医学研究センター, 4群馬大学医学部循環器内科
CDR6 ホームモニタリング機能により早期発見できたEMIによるICD不適切作動の1例
田中伸幸 1, 高橋憲一 1, 中島正雄 1, 大村昌人 2
1バイオテクニクジャパン株式会社営業戦略企画部, 2山口県済生会下関総合病院

CDR7 True bipolarからintegrated bipolarに変更することで不適切作動を回避できている一例
塩谷周平 1, 三浦康祐 1, 佐藤仰太郎 1, 鈴木信都 1, 佐藤孝博 1, 荒川博之 1, 川岸 浩 1, 赤井澤義紀 1, 矢口喜彦 1, 石澤 真 1, 有本貴範 1, 岩山忠輝 2, 石垣大輔 2, 橋本直明 2, 熊谷 遊 2, 渡邉 哲 2, 久保田功 2
1三栄カルディオ株式会社, 2山形大学医学部内科学第一講座

CDR8 4極リードを使用したCRT-Dにおいて閾値判定に難渋した1例
上総寛人 1, 谷本耕司郎 2, 菊地大視 1
1日本メディテクニック株式会社CRHF事業部, 2国立病院機構東京医療センター

CDR9 高除細動閾値症例に対するICDシステム構成に関する考察
鬼塚啓一 1, 藤田 厭雄 1, 堀部健太郎 1, 中山哲也 1, 伊藤寿昭 1, 阿部芳久 2, 寺田 健 2
1日本メディテクニック株式会社, 2秋田県立脳血管研究センター

CDR10 High DFTに於いてDeft Responseが有効であった1例
成瀬 護, 金野吉倫
セントジェュードメディカル株式会社
Should we perform catheter ablation for the patients with chronic AF?

Chair  
Teiichi Yamane  
Division of Cardiology, Jikei University School of Medicine, Tokyo, Japan

D5-1  
Pro  
Taku Asano  
Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan

D5-2  
Con  
Taishi Kuwahara  
Cardiovascular Center, Yokosuka Kyosai Hospital, Kanagawa, Japan
O36-1 The impact of recurrences of atrial fibrillation during the blanking period after pulmonary vein isolation

Yosuke Murase, Yasuhiro Ogawa, Hajime Imai, Seifuku Kyo, Yosuke Negishi, Noriaki Otake, Hiroaki Sawada, Yoshimoto Arao, Keisuke Sakakibara, Katsuhiro Kawaguchi

The Department of Cardiology, Komaki City Hospital, Aichi, Japan

O36-2 Incidence and Significance of Early Recurrence After Catheter Ablation of Paroxysmal Atrial Fibrillation

Jin Teranishi, Katsunori Okajima, Akira Shimane, Kunihiko Kiuchi, Kinobu Yokoi, Kosuke Aoki, Misato Chimura, Hideo Tsubata, Taishi Miyata, Yuki Matsuoka, Takayoshi Toba, Shogo Ohishi, Takahiro Sawada, Yasue Tsukishiro, Tetsu Ito, Seiichiro Kobayashi, Shinichiro Yamada, Yasuo Taniguchi, Yoshinori Yasaka, Hiroya Kawai

Himeji Cardiovascular Center, Hyogo, Japan

O36-3 Does three-month "blanking period" also exist after the second session of atrial fibrillation ablation?


Department of Cardiovascular Medicine, Nippon Medical School, Tokyo, Japan

O36-4 Pre-procedural Heart Rhythm Predicts Recurrence of Atrial Fibrillation in Patients Undergoing Pulmonary Vein Isolation

Kenichi Yokoyama, Keiichi Inada, Kenichi Tokutake, Keiichi Itou, Mika Hioki, Ryohsuke Narui, Shin-ichi Tanigawa, Seigo Yamashita, Michifumi Tokuda, Seiichiro Matsuo, Kenichi Sugimoto, Michihiro Yoshimura, Teiichi Yamane

Cardiology, Jikei University, Tokyo, Japan

O36-5 Predictors of Arrhythmia Recurrence after Termination of Persistent Atrial Fibrillation by Catheter Ablation

Shinsuke Iwai, Yoshihide Takahashi, Naoyuki Miwa, Mayumi Masumura, Yasuhiro Sato, Kenzo Hirao, Mitsuaki Isobe

1Department of Cardiovascular Medicine, National Disaster Medical Center, Tokyo, Japan, 2Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan, 3Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan
**AF Ablation 6**

**Chairs**

Koichiro Ejima  
*Department of Cardiology, Tokyo Women's Medical University, Tokyo, Japan*

Yasuteru Yamauchi  
*Department of Cardiovascular Medicine, Japanese Red Cross Musashino Hospital, Tokyo, Japan*

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**O37-1 Low Voltage Zone-guided Substrate Modification in Patients with Non-paroxysmal Atrial Fibrillation: A Feasibility Study**

Takanori Yamaguchi¹, Shiro Nakahara², Takeshi Tsuchiya¹, Akira Fukui¹, Yasutsugu Nagamoto³, Naohiko Takahashi⁴  
¹EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, ²Dokkyo Medical University Koshigaya Hospital, Department of Cardiology, Saitama, Japan, ³Saga-ken Medical Centre Koseikan, Saga, Japan, ⁴Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan

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**O37-2 Low-voltage area in anterior left atrium was frequently related to left atrial tachycardia in patients without any other cardiovascular histories**

Yuichiro Sakamoto, Kohei Yamashiro, Daisuke Yoshimoto, Kazuto Kujira, Mitsuaki Itoh, Takahiko Suzuki  
*Cardiovascular Medicine, Toyohashi Heart Center, Aichi, Japan*

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**O37-3 Association between Rotational Activations (RotA) and Low Voltage Zone (LVZ) and Effect of LVZ Ablation in Patients with Non-Paroxysmal Atrial Fibrillation**

Takanori Yamaguchi¹, Shiro Nakahara², Takeshi Tsuchiya¹, Akira Fukui¹, Yasutsugu Nagamoto³, Naohiko Takahashi⁴  
¹EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, ²Dokkyo Medical University Koshigaya Hospital, Department of Cardiology, Saitama, Japan, ³Saga-ken Medical Centre Koseikan, Saga, Japan, ⁴Department of Cardiology and Clinical Examination, Faculty of Medicine, Oita University, Oita, Japan

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**O37-4 Relationship between left atrial wall thickness by computed tomography and voltage amplitude and procedural parameters in patients undergoing radiofrequency catheter ablation of paroxysmal atrial fibrillation**

Eri Goto, Kohki Nakamura, Shigeto Naito, Kentaro Minami, Takehito Sasaki, Satoru Shimizu, Toshiaki Yano, Masahiro Nakano, Daisuke Kutsuzawa, Yoshiaki Yamaguchi, Koji Kumagai, Shigeru Oshima  
*Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan*
Predictive Factors of Atrial Fibrillation Recurrence After First Pulmonary Vein Isolation of Persistent Atrial Fibrillation

Kazuhiro Yajima¹, Yuichiro Yamase¹, Junki Yamamoto¹, Naoki Yoshioka¹, Chikara Ueyama¹, Nobukatsu Akita¹, Toshimasa Shigeta¹, Hideki Horibe¹, Takeshi Hibino¹, Taizo Kondo¹, Nobuyuki Ohte²

¹Department of Cardiology, Gifu Prefectural Tajimi Hospital, Gifu, Japan, ²Department of Cardio-Renal Medicine and Hypertension, Nagoya City University Graduate School of Medical Sciences, Aichi, Japan
Results from the Prospective Registry of Patients Using the Wearable Defibrillator (WEARIT-Ⅱ Registry) ★

Chair  Kazuo Matsumoto
Higashimatsuyama Medical Association Hospital, Saitama, Japan / Cardiology Department of International Medical Center Saitama Medical University, Saitama, Japan

LS20-1 Results from the Prospective Registry of Patients Using the Wearable Defibrillator (WEARIT-Ⅱ Registry)

Valentina Kutyifa
University of Rochester Medical Center, USA

(ASAHI KASEI ZOLL MEDICAL CORPORATION)
Room 8  14:10-15:10 Debate6 [D6]

Is DFT test necessary for ICD implant?

Chair  Hisashi Yokoshiki  
Department of Cardiovascular Medicine, Hokkaido University Hospital, Hokkaido, Japan

D6-1  Pro

Yoshihisa Abe  
Department of Cardiology, Research Institute for Brain and Blood Vessels Akita, Akita, Japan

D6-2  Con

Takeshi Mitsuhashi  
Cardiovascular Medicine, Saitama Medical Center, Jichi Medical University, Saitama, Japan
AF Ablation 7

**Chairs**

Akihiro Yoshida  
Division of Cardiovascular Medicine, Department of Internal Medicine, Kitaharima Medical Center, Hyogo, Japan  

Takahiko Nagase  
Department of Cardiology, Saitama Medical University, International Medical Center, Saitama, Japan

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**O38-1**  
*Force time index of VisiTag module is useful in reducing residual conduction gap in circumferential pulmonary vein isolation for atrial fibrillation*  

Noriyori Kaname¹, Masaomi Kimura², Daisuke Horiuchi³, Kenichi Sasaki², Taihei Itoh², Ken Okumura²  
¹Department of Internal Medicine, Chikamori Hospital, Kochi, Japan, ²Department of Cardiology, Hirosaki University Graduate School of Medicine, Aomori, Japan, ³Department of Advance Management of Cardiac Arrhythmia, Hirosaki University, Aomori, Japan

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**O38-2**  
*How Strongly Dose We Get the Catheter Contact with Agilis Steerable Sheath?*  

Taku Asano, Kou Ogawa, Yuya Nakamura, Akinori Ochi, Koichiro Inokuchi, Yuta Chiba, Shiro Kawasaki, Yoshimi Onishi, Yoshimasa Onuma, Yumi Munetsugu, Miwa Kikuchi, Hiroyuki Ito, Tatsuya Onuki, Fumito Miyoshi, Yoshino Minoura, Norikazu Watanabe, Taro Adachi, Mitsuharu Kawamura, Youichi Kobayashi  
Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan

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**O38-3**  
*Influence of Pulmonary Vein Locations on the Catheter Stability Assessed by VISITAG™ Module of CARTO 3 System*  

Rikitake Kogawa¹, Yasuo Okumura¹, Ichiro Watanabe¹, Koichi Nagashima¹, Kazumasa Sonoda¹, Naoko Sasaki¹, Kazuki Iso¹, Keiko Takahashi¹, Sayaka Kurokawa¹, Shiro Nakahara¹, Masatsugu Hori¹, Kimie Ohkubo¹, Toshiko Nakai¹, Atsushi Hirayama¹  
¹Division of Cardiology, Department of Medicine, Nihon University School of Medicine, Tokyo, Japan, ²Dokkyo Medical University Koshigaya Hospital, Department of Cardiology, Saitama, Japan

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**O38-4**  
*Immediate and long-term outcomes of contact force guided catheter ablation for atrial fibrillation*  

Hiroshi Tasaka, Satoki Fujii, Masatomo Ozaki, Mitsuru Yoshino, Noriyuki Ohashi, Yoji Okamoto, Kazushige Kadota, Kazuaki Mitsudo  
Department of Cardiology, Kurashiki Central Hospital, Okayama, Japan
Impact of catheter ablation with contact force sensing and automated lesion tagging on pulmonary vein isolation


Department of Cardiology, JCHO Chukyo Hospital, Aichi, Japan
**Is a HUT necessary for the prediction of sudden cardiac death?**

**Chair**
Yuji Murakawa  
*Department of Internal Medicine, Teikyo University Mizonouchi Hospital, Kanagawa, Japan*

**D7-1 Pro**
Haruhiko Abe  
*Department of Heart Rhythm Management, University of Occupational and Environmental Health, Fukuoka, Japan*

**D7-2 Con**
Mitsuhiro Nishizaki  
*Department of Cardiology, Yokohama Minami Kyosai Hospital, Kanagawa, Japan*
Room 9  8:30-10:00 Symposium9 [SP9]

Risk Stratification of Early Repolarization Syndrome ★

Chairs
Yoshifusa Aizawa
Research and Development Tachikawa Medical Center, Niigata, Japan

Shiro Kamakura
Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan

SP9-1  The prognostic value of early repolarization (ER) and ST-segment morphology following the ER in Brugada syndrome: Multicenter study in Japan

Masahiko Takagi, Yukio Sekiguchi, Yasuhiro Yokoyama, Naohiko Aihara, Masayasu Hiraoka, Kazutaka Aonuma, The Japan Idiopathic Ventricular Fibrillation Study (J-IVFS) Investigators
The Department of Cardiovascular Medicine, Osaka City University Graduate School of Medicine, Osaka, Japan

SP9-2  Syncope in patients with J wave

Yoshino Minoura, Yuta Chiba, Yuya Nakamura, Kou Ogawa, Akinori Ochi, Koichirou Inokuchi, Yoshihisa Onishi, Shiro Kawasaki, Yumi Munetsugu, Miwa Kikuchi, Tatsuya Onuki, Norikazu Watanabe, Taro Adachi, Mitsuharu Kawamura, Taku Asano, Youichi Kobayashi
Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan

SP9-3  The impact of characteristics ECG morphology on the occurrence of ventricular fibrillation in hypothermic patients with Osborn wave

Hiroki Sugiyama1, Hiroshi Morita2, Motomi Tachibana1, Koji Nakagawa1, Nobuhiro Nishii3, Kazufumi Nakamura1, Satoshi Nagase1, Hiroshi Ito1
1Department of Cardiovascular Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan, 2Department of Cardiovascular Therapeutics, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

SP9-4  Importance of dynamic analysis of wide spectrum of repolarization indices in early repolarization syndrome

Ahmed Talib, Nobuyuki Sato, Eitaro Sugiyama, Naoko Kawabata, Naka Sakamoto, Yasuko Tanabe, Yuichiro Kawamura, Naoyuki Hasebe
Asahikawa Medical University, First Department of Medicine, Hokkaido, Japan

SP9-5  Risk factors for the recurrence of ventricular fibrillation in patients with early repolarization syndrome

Tsukasa Kamakura, Mitsuru Wada, Ikutarou Nakajima, Kohei Ishibashi, Koji Miyamoto, Hideo Okamura, Takashi Noda, Takeshi Aiba, Shiro Kamakura, Kengo Kusano
Division of Arrhythmia and Electrophysiology, Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan
Sleep Apnea Syndrome and Arrhythmias—Relations with the Autonomic Nervous System

Chairs
Virend K. Somers
Mayo Clinic, USA

Eiichi Watanabe
Department of Cardiology, Fujita Health University, Aichi, Japan

SP10-1 Key Note Lecture: Autonomic Mechanisms in Sleep Apnea—Implications for Arrhythmias and Sudden Death
Virend K. Somers
Mayo Clinic, USA

SP10-2 Nocturnal Variations in Atrial and Ventricular Electrophysiological Properties in Obstructive Sleep Apnea
Tetsuo Sasano, Yuri Ishihara, Mamiko Oya, Toshihide Fujie, Meiyo Tamaoka, Yuki Sumi, Masato Matsuura, Yasunari Miyazaki, Kenzo Hirao
1Department of Biofunctional Informatics, Tokyo Medical and Dental University, Tokyo, Japan, 2Department of Respiratory Medicine, Tokyo Medical and Dental University, Tokyo, Japan, 3Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan

SP10-3 The Impact of Sleep Apnea on Early and Late Recurrence of Atrial Fibrillation Following Catheter Ablation
Shin-ichi Tanigawa, Seiichiro Matsuo, Ken-ichi Tokutake, Ken-ichi Yokoyama, Ryohsuke Narui, Mika Hioki, Michifumi Tokuda, Seigo Yamashita, Keiichi Inada, Kenri Shibayama, Satoru Miyanaga, Kenichi Sugimoto, Teiichi Yamane
The Department of Cardiology, The Jikei University School of Medicine, Tokyo, Japan

SP10-4 A severity of sleep-disordered breathing with atrial fibrillation ablation candidates is associated with the long-term outcome after pulmonary vein antrum isolation
Kazuaki Kaitani, Naoaki Onishi, Yukiko Hayama, Hirokazu Kondo, Yoshihisa Nakagawa
Department of Cardiology, Tenri Hospital, Nara, Japan

SP10-5 Impact of Obstructive Sleep Apnea on Cardiac Sympathetic Drive in Patients with Congestive Heart Failure
Taro Adachi, Shinji Koba, Ko Ogawa, Yuya Nakamura, Akinori Ochi, Koichiro Inokuchi, Yuta Chiba, Yumi Munetsugu, Yoshimasa Onuma, Shiro Kawasaki, Yoshihiko Onishi, Tatsuya Onuki, Norikazu Watanabe, Yoshino Minoura, Mitsuharu Kawamura, Taku Asano, Youichi Kobayashi
Department of Medicine, Division of Cardiology, Showa University School of Medicine, Tokyo, Japan
Room 9  11:50-12:50 Luncheon Seminar21 [LS21]

T2DM treatments for the prevention of CVD

Chair  Shiro Iwanaga  
Department of Cardiology, Saitama Medical University, International Medical Center, Saitama, Japan

LS21-1  T2DM treatments for the prevention of CVD

Kouichi Inukai  
Director of Diabetic Center, Division of Diabetes and Endocrinology, Higashiyamato Hospital, Tokyo, Japan

(MSD K.K.)
ICD患者のサポート

座長 樺木晶子
九州大学医学部保健学科
梅津 努
筑波大学附属病院看護部CDRチーム

MPS3-1 植込み型除細動器 (ICD) 患者の健康関連QOLと心理的問題に関する研究

宮田真美1, 澤渡浩之2, 橋口暢子3, ラハマワチアニタ3, 石川勝彦4, 竹本真生5, 向井 靖6, 井上修二郎7, 眞茅みゆき8, 大塚祐子9, 櫻田春水7, 仲井 盛10, 樺木浩朗11, 樺木晶子12

1福岡県立大学看護学部, 2済生会二日市病院, 3九州大学, 4熊本大学, 5北里大学, 6東京都立広尾病院, 7東京都保健医療公社大久保病院, 8保健医療経営大学

MPS3-2 ICD患者を支えるための社会的サポート

安岡良輝1, 梅津 努1, 助川みやこ1, 小川孝二郎2, 関口幸夫3, 野上昭彦4, 青沼和隆5

1筑波大学附属病院看護部, 2筑波大学附属病院循環器内科

MPS3-3 ICD患者の社会復帰阻害因子の検討と多職種での取り組み

大野真紀
亀田総合病院循環器内科

MPS3-4 当院のICD患者管理について

篠岡俊介1, 川崎 誠1, 矢島一生1, 政木拓也1, 山田裕紀1, 宮本泰介1, 佐藤友理1, 酒井 毅5, 松村俊哉3, 塚原玲子3, 伊藤良明3, 石盛 博3, 平野敬典1, 中野雅嗣1, 山脇理弘3, 荒木基晴3, 小林 篤3, 滝村英幸3, 阪本泰成3

1恩賜財団済生会横浜市東部病院臨床工学部, 2恩賜財団済生会横浜市東部病院不整脈科, 3恩賜財団済生会横浜市東部病院循環器内科
MRI対応デバイスの撮像における実態と問題点

座長 中島 博
日本デバイス治療研究所

土橋俊男
日本医科大学附属病院放射線科

MPS4-1 条件付きMRI対応デバイスにおけるMRI検査の安全性・モード設定に関する検討
杉山千穂1, 中井俊子2, 西尾佳恵1, 松井孝拓1, 池谷之利2, 永島正明2, 永崎孝一2, 古川元丈2, 佐々木直子2, 磯一貴2, 高橋啓子2, 園田和正2, 黒川早矢香2, 大久保公恵2, 奥村謙男2, 郷本聡2, 渡辺一郎2, 平山篤志2
1日本大学医学部附属板橋病院臨床工学技士室, 2日本大学医学部内科学系循環器内科学分野, 3日本大学医学部病態病理学系臨床検査医学分野

MPS4-2 当院におけるMRI対応デバイス撮影の現状
磯村健二1, 吉田 靖1, 楠本繁崇1, 加藤貴充1, 近藤智勇1, 村辻雄大1, 高階雅紀1, 南口 仁2, 水野裕八2, 小西正三2, 小津賢太郎2, 中野智彰2, 山口 修2, 奥山裕司2, 坂田泰史2
1大阪大学医学部附属病院MEサービス部, 2大阪大学大学院医学系研究科循環器内科学

MPS4-3 当院における条件付きMRI対応ベースメーカ患者の撮影経験と課題
境田知子1, 五関善成2, 寶田 顕1, 斎藤由佳1, 矢崎義直2, 末尾邦武1, 山科 章2
1東京医科大学病院中央検査部生理機能検査室, 2東京医科大学病院循環器内科

MPS4-4 条件付きMRI対応デバイスの心臓MRIに対するアークファクトの影響と撮像法の工夫
水野直和1, 井上完起1, 友池仁暢2, 矢川真弓子2, 歌野原祐子2, 高田香織1, 井口信雄1, 梅村 純2, 杉岡 翔1, 松田 純1
1公益財団法人日本心臓血管研究振興会井原記念病院放射線科, 2公益財団法人日本心臓血管研究振興会井原記念病院循環器内科
Imaging 2

Chairs
Junichi Nitta
Department of Cardiovascular Medicine, Saitama Red Cross Hospital, Saitama, Japan
Yusuke Kodama
Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan

O39-1 A single center study for evaluating anatomical variations of sinoatrial nodal artery using 320-slice CT
Yasunori Hiranuma¹, Takayasu Ishikawa¹, Yukiko Toyoda¹, Marehiko Ueda², Akira Miyazaki¹
¹Department of Cardiology, Chiba Cerebral and Cardiovascular Center, Chiba, Japan, ²Department of Cardiovascular Medicine, Chiba University Graduate School of Medicine, Chiba, Japan

O39-2 Novel echocardiographic parameter for optimal heart rate control in patients with atrial fibrillation
Kentaro Nakamura¹, Keiko Yamashita¹, Chikashi Nago¹, Tomoyuki Kawashima¹, Naoto Miyagi¹, Hiroki Uehara¹, Masanori Shimajiri¹, Tatsuya Kuniyoshi¹, Mitsuaki Takami¹
¹The Department of Cardiology, Urasoe General Hospital, Okinawa, Japan, ²The Department of Internal Medicine, Owaki Hospital, Tokyo, Japan

O39-3 Comparison of radiation dose of catheter ablation for atrial fibrillation using three-dimensional computed tomography or using three-dimensional rotational angiography
Satoshi Fujita, Eitaro Fujii, Yoshihiko Kagawa, Masaaki Ito
Department of Cardiology and Nephrology, Mie University Graduate School of Medicine, Mie, Japan

O39-4 Safety advantage of preprocedural thrombus evaluation of the left atrial appendages by using intracardiac echocardiography in patients undergoing catheter ablation for persistent atrial fibrillation
Yukinori Ikegami, Kojiro Tanimoto, Kohei Inagawa, Kotaro Miura, Tadashi Fukuda, Memori Fukuda, Wataru Yamada, Jun Fuse, Munehisa Sakamoto, Yukihiro Momiyama
Department of Cardiology, National Hospital Organization Tokyo Medical Center, Tokyo, Japan

O39-5 Cardiac imaging for the management of arrhythmia
Yasushi Akutsu¹, Youichi Kobayashi²
¹Department of Internal Medicine (Cardiology), Clinical Research Center for Clinical Pharmacology & Therapeutics, Showa University Karasuyama Hospital, Tokyo, Japan, ²Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan
### Room 10 9:30-10:30 Oral Presentation [O40]

**AF Ablation Complication 3★**

**Chairs**
- Takashi Komatsu  
  *Division of Cardiology, Department of Internal Medicine, Iwate Medical University, Iwate, Japan*
- Shiro Narahara  
  *Department of Cardiology, Dokkyo University Koshigaya Hospital, Saitama, Japan*

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<th>Session</th>
<th>Title</th>
<th>Authors</th>
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</thead>
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  *Cardiovascular Center, Nagoya Daini Red Cross Hospital, Aichi, Japan* |
| **O40-2** | **Comparison of Myocardial Injury Induced by Cryoballoon Ablation and Radiofrequency Contact Force-guided Ablation in Patients Undergoing Circumferential Pulmonary Vein Isolation** | Daisuke Horiuchi¹, Takahiko Kinjo², Yuji Ishida³, Taihei Itoh³, Kenichi Sasaki³, Masaomi Kimura³, Shingo Sasaki³, Ken Okumura³  
  ¹Department of Advance Management of Cardiac Arrhythmias, Hirosaki University Graduate School of Medicine, Aomori, Japan, ²Department of Cardiology, Hirosaki University Graduate School of Medicine, Aomori, Japan |
| **O40-3** | **Pre-assessment of the left atrial and pulmonary venous wall thickness for a prediction of pulmonary vein isolation with cryoballoon ablation** | Akira Ueno¹, Norishige Morita¹, Takayuki Iida¹, Masashi Hashida², Akiko Ushijima¹, Yoshinori Kobayashi¹  
  ¹Division of Cardiology, Department of Medicine, Tokai University Hachioji Hospital, Tokyo, Japan, ²Tokai University Tokyo Hospital, Tokyo, Japan |
| **O40-4** | **The risk factor of the phrenic nerve palsy with second-generation cryoballoons** | Masahito Suzuki¹, Junichi Nitta¹, Yosuke Hayashi¹, Yoshikazu Sato¹, Keita Watanabe¹, Yukihito Inamura¹, Ken Negi¹, Tatsuya Hayashi¹, Akira Sato¹, Tsunehiro Yamato¹, Yutaka Matsumura¹, Kihiro Asakawa¹, Masahiko Goya², Kenzo Hirao²  
  ¹The Department of Cardiology, Saitama Red Cross Hospital, Saitama, Japan, ²Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan |
| **O40-5** | **Detection of phrenic nerve palsy following pulmonary vein isolation with cryoballoon** | Yusuke Kondo¹, Takashi Kurita², Marehiko Ueda¹, Yoshio Kobayashi¹, Joerg O. Schwab¹  
  ¹Department of Medicine-Cardiology, University of Bonn, Bonn, Germany, ²Division of Cardiovascular Center, Department of Medicine, Kinki University, Osaka, Japan, ³Department of Cardiology, Chiba University Graduate School of Medicine, Chiba, Japan |
Anticoagulant 3

**Chairs**
- Takeshi Tobiume
  *Department of Cardiology, Tokushima University Hospital, Tokushima, Japan*
- Kojiro Tanimoto
  *Department of Cardiology, NHO Tokyo Medical Center, Tokyo, Japan*

**O41-1** Antiplatelet drugs accelerate fibrinolytic system and coagulating system

*Koichiro Inokuchi*, Norikazu Watanabe, Mitsuharu Kawamura, Yuya Nakamura, Akinori Ochi, Yuta Chiba, Yoshimi Onishi, Yumi Munetsugu, Tatsuya Onuki, Yoshino Minoura, Taro Adachi, Taku Asano, Youichi Kobayashi

*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

**O41-2** Evaluation of Anti-Coagulability between Non-vitamin K Antagonist Oral Anticoagulants from the Standpoint of the Number of Oral Administration. Once or Twice a day?

*Shigetaka Kanda*¹, Koichiro Yoshioka¹, Daisuke Fujibayashi¹, Tadashi Hashida², Mari Amino¹, Yuji Ikari¹

¹Department of Cardiology, Internal Medicine, Tokai University, Kanagawa, Japan, ²Tokyo Hospital, Tokai University, Tokyo, Japan

**O41-3** A novel evaluation system for efficacy of warfarin and NOAC with Dielectric blood coagulometry

*Yusuke Ebana*¹, Mitsuaki Isobe²

¹Department of Bioinformational Pharmacology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan, ²Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan

**O41-4** Left atrial appendage thrombus formation in patients with nonvalvular atrial fibrillation on anticoagulation therapy

*Mihoko Kawabata*, Masahiko Goya, Takeshi Sasaki, Susumu Tao, Yasuhiro Shirai, Takuro Nishimura, Kenzo Hirao

*Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*

**O41-5** Questionnaire Survey on the Actual Conditions of Antithrombotic Medications in a Cardiology Outpatient Clinic of a Medical Center

*Tadashi Fujino*, Kenzaburo Kobayashi, Hitomi Yuzawa, Hideki Koike, Toshiki Asada, Ken Kitahara, Toshio Kinoshita, Takeya Suzuki, Atsuko Abe, Hideyuki Sato, Shunji Fukunaga, Takanori Ikeda

*Department of Cardiovascular Medicine, Toho University Faculty of Medicine, Tokyo, Japan*
Room 10 11:50-12:50 Luncheon Seminar22 [LS22]

Amiodarone: Young Doctor’s Guide for Use and Monitoring

Chair Kazutaka Aonuma
Cardiovascular Division, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Ibaraki, Japan

LS22-1 Amiodarone: Young Doctor’s Guide for Use and Monitoring
Tsuyoshi Shiga
Department of Cardiology, Tokyo Women's Medical University, Tokyo, Japan

(Sanofi K.K.)
**Ablation Respiratory Care**

**Chairs**

Mahito Noro  
*Department of Cardiology, Toho University Ohashi Hospital, Tokyo, Japan*

Tatsuya Onuki  
*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

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**O42-1**  
Respiratory care by Jaw elevation device combined with adaptive servo-ventilation can put the patient under deep sedation with stable respiration during atrial fibrillation ablation

Kazuya Mizukami, Hisashi Yokoshiki, Hirofumi Mitsuyama, Taro Tenma, Hiroyuki Tsutsui  
*Department of Cardiovascular Medicine, Hokkaido University Graduate School of Medicine, Hokkaido, Japan*

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**O42-2**  
Impact of Deep Sedations during Catheter Ablation on the Electrophysiological Behavior of PV and Non-PV Firing in Atrial Fibrillation Patients

Ryohsuke Narui, Seiichiro Matsuo, Ken-ichi Tokutake, Ken-ichi Yokoyama, Mika Hioki, Shin-ichi Tanigawa, Michifumi Tokuda, Keiichi Inada, Kenri Shibayama, Michihiro Yoshimura, Teiichi Yamane  
*Division of Cardiology, Department of Internal Medicine, The Jikei University School of Medicine, Tokyo, Japan*

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**O42-3**  
Combination of Bilevel Positive Airway Pressure and Oral Airway Insertion Is an Effective Strategy during Atrial Fibrillation Ablation

Yoshiaki Yamaguchi, Koji Kumagai, Masahiro Nakano, Daisuke Kutsuzawa, Eri Goto, Kentaro Minami, Satoru Shimizu, Toshiaki Yano, Takehito Sasaki, Kohki Nakamura, Shigeto Naito, Shigeru Oshima  
*Gunma Cardiovascular Center, Gunma, Japan*

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**O42-4**  
Usage experience of I–gel for respiratory management with deep sedation during atrial fibrillation ablation

Masahiro Maruyama, Koji Miyamoto, Tsuyoshi Mishima, Yoshitaka Kimura, Junji Kaneyama, Ayako Kamijima, Saeko Hirose, Tsukasa Kamakura, Mitsuru Wada, Ikutaro Nakajima, Kohei Ishibashi, Hideo Okamura, Takashi Noda, Takeshi Aiba, Shiro Kamakura, Kengo Kusano  
*Department of Cardiovascular Medicine, National Cerebral and Cardiovascular Center, Osaka, Japan*
Continuous positive airway pressure therapy for sleep disordered breathing reduces the recurrence of atrial fibrillation after initial pulmonary vein isolation

Hiroshi Kawakami\textsuperscript{1}, Takayuki Nagai\textsuperscript{1}, Akira Fujii\textsuperscript{1}, Chiharuko Iio\textsuperscript{1}, Kaori Fujimoto\textsuperscript{2}, Tamami Kono\textsuperscript{1}, Teruyoshi Uetani\textsuperscript{1}, Kazuhisa Nishimura\textsuperscript{1}, Katsuji Inoue\textsuperscript{1}, Jun Suzuki\textsuperscript{1}, Yasunori Oka\textsuperscript{1}, Akiyoshi Ogimoto\textsuperscript{1}, Takafumi Okura\textsuperscript{1}, Jitsuo Higaki\textsuperscript{1}

\textsuperscript{1}Department of Cardiology, Pulmonology, Hypertension and Nephrology, Ehime University Graduate School of Medicine, Ehime, Japan, \textsuperscript{2}Ehime University Center for Sleep Medicine, Ehime, Japan
AF Ablation 8

Chairs
Satoshi Higa
Cardiac Electrophysiology and Pacing Laboratory, Division of Cardiovascular Medicine, Makiminato Central Hospital, Okinawa, Japan

Kazuhiko Tanaka
Heart Center, Arrhythmia Unit, Kasukabe Chuo General Hospital, Saitama, Japan

O43-1 Catheter ablation of non-pulmonary vein firing originating from interatrial septum causing repetitive recurrence of paroxysmal atrial fibrillation after pulmonary vein isolation

Hitoshi Mori, Akira Hamabe, Junko Arakawa, Mai Otsuka, Yoshinori Takase, Youdou Gatate, Shunichi Takiguchi, Kazuhiro Nakaya, Norio Ishigami, Hirotsugu Tabata, Shuichi Katushika, Bonpei Takase

1Department of Cardiovascular Medicine, Self Defense Forces Central Hospital, Tokyo, Japan, 2Department of Intensive Care Medicine, National Defense Medical College, Saitama, Japan

O43-2 Impact of Empiric Isolation of the Superior Vena Cava in Addition to Circumferential Pulmonary Vein Isolation on the Outcome of Paroxysmal Atrial Fibrillation Ablation

Koichiro Ejima, Ken Kato, Ryuta Henmi, Daigo Yagishita, Tetsuyuki Manaka, Michiko Imai, Kuniaki Suwa, Takashi Mizuki, Morio Shoda, Nobuhisa Hagiwara

Department of Cardiology, Tokyo Women's Medical University, Tokyo, Japan

O43-3 Withdrawn

O43-4 Withdrawn

O43-5 Catheter Ablation of Non-Pulmonary Vein Foci Induced by High-Dose Isoproterenol and Rapid Atrial Pacing in Patients with Paroxysmal Atrial Fibrillation

Tatsuya Hayashi, Junichi Nitta, Akira Sato, Yosuke Hayashi, Yoshikazu Sato, Keita Watanabe, Yukihiro Inamura, Masahito Suzuki, Ken Negi, Tsunehiro Yamato, Yutaka Matsumura, Kihiro Asakawa, Masahiko Goya, Kenzo Hirao

1Saitama Red Cross Hospital, Saitama, Japan, 2Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan
Room 10  16:10-17:10 Oral Presentation [O44]

Anticoagulant 4

Chairs
- Tetsuya Asakawa
  Department of Cardiology, Yamanashi Kosei Hospital, Yamanashi, Japan
- Eitaro Kodani
  Department of Internal Medicine and Cardiology, Nippon Medical School Tama-Nagayama Hospital, Tokyo, Japan

O44-1 Stroke prevention and bleeding complications among warfarin, dabigatran, rivaroxaban and apixiaban in patients undergoing atrial fibrillation ablation

Kiyohiro Hyogo, Koji Fukuzawa, Akihiro Yoshida, Tomoyuki Nakanishi, Soichiro Yamashita, Akinori Matsumoto, Hiroki Konishi, Hirotoshi Ichibori, Hiroshi Imada, Ken-ichi Hirata
Kobe University School of Medicine, Hyogo, Japan

O44-2 Different Characteristics of Non-Vitamin K Antagonist Oral Anticoagulants As Perioperative Therapy During Atrial Fibrillation Ablation

Hirosuke Yamaji¹, Shunichi Higashiya¹, Hiroshi Kawamura², Takashi Murakami², Kazuyoshi Hina²
¹Heart Rhythm Center, Okayama Heart Clinic, Okayama, Japan, ²Cardiovascular Medicine, Okayama Heart Clinic, Okayama, Japan

O44-3 Comparisons of the effect of anticoagulation therapies on the coagulation system including the tissue factor pathway between vitamin K antagonist and the factor Xa inhibitors

Sou Otsuki¹, Daisuke Izumi¹, Akinori Sato¹, Toshiki Takano¹, Yuki Hasegawa¹, Nobue Yagihara¹, Hiroshi Watanabe¹, Masaomi Chinushi², Tohru Minamino¹
¹Department of Cardiovascular Biology and Medicine, Niigata University School of Medical and Dental Sciences, Niigata, Japan, ²School of Health Science, Faculty of Medicine, Niigata University, Niigata, Japan

O44-4 Predictors of silent cerebral emboli by magnetic resonance imaging after catheter ablation of atrial fibrillation among four oral anticoagulants

Kohki Nakamura, Shigeto Naito, Kentaro Minami, Takehito Sasaki, Eri Goto, Suguru Shimizu, Daisuke Kutsuzawa, Yoshiaki Yamaguchi, Masahiro Nakano, Toshiaki Yano, Koji Kumagai, Shigeru Oshima
Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan
O44-5 Apixaban Does not Increase Re-bleeding on Puncture Site in High Risk Patients Undergoing Atrial Fibrillation Ablation

Keisuke Okawa, Saori Tsukuda, Naoaki Matsuo, Tomoyuki Nishibe, Fumi Yokohama, Masahiro Sogo, Kazumasa Nosaka, Masahito Kajiya, Masayuki Doi, Keiichi Mashima, Kou Takeda

Department of Cardiovascular Medicine, Kagawa Prefectural Central Hospital, Kagawa, Japan
Thursday, 30 July

Room 11  8:30-9:20 Oral Presentation [O45]

AF Ablation 9★

Chairs  Hisa Shimojima  
Division of Cardiology, Showa University Fujigaoka Hospital, Kanagawa, Japan

Yukoh Hirai  
Department of Cardiology, Kure Kyosai Hospital, Hiroshima, Japan

O45-1  Short coupling interval ectopies may trigger atrial fibrillation
Takashi Kanda, Masaharu Masuda, Akihiro Sunaga, Yasuhiro Matsuda, Masaaki Uematsu  
Kansai Rosai Hospital, Cardiovascular Center, Hyogo, Japan

O45-2  Novel Diagnostic Approach to Identify Arrhythmogenic Pulmonary Vein during Catheter Ablation for Atrial Fibrillation
Masahide Harada1, Kohei Sawasaki2, Masahiro Muto3, Masayuki Koshikawa1, Tomohide Ichikawa1, Mayumi Yamamoto1, Yoshihiro Sobue1, Kentarou Okuda1, Asami Fujisawa3, Eiichi Watanabe1, Yukio Ozaki1  
1Department of Cardiology, Fujita Health University School of Medicine, Aichi, Japan, 2Department of Cardiology, Hamamatsu Medical Center, Shizuoka, Japan

O45-3  Paroxysmal Atrial Fibrillation Diagnosed by Medical Check-up (KEN-SHIN) Predicts Worse Outcome of Catheter Ablation
Ryohsuke Narui, Michifumi Tokuda, Ken-ichi Tokutake, Ken-ichi Yokoyama, Mika Hioki, Shin-ichi Tanigawa, Keiichi Inada, Seiichiro Matsuo, Kenri Shibayama, Michifumi Yoshimura, Teiichi Yamane  
Division of Cardiology, Department of Internal Medicine, The Jikei University School of Medicine, Tokyo, Japan

O45-4  The time course of the change in P wave morphology in cases with new onset atrial fibrillation
Tomoharu Yoshizawa1, Shinichi Niwano1, Hironori Nakamura1, Tazuru Igarashi1, Tamami Fujiishi1, Naruya Ishizu1, Jun Okawa1, Jun Kishihara1, Akira Satoh1, Masami Murakami1, Hidehira Fukaya1, Hiroe Niwano1, Junya Ako1  
1Department of Cardiovascular Medicine, Kitasato University School of Medicine, Kanagawa, Japan, 2Department of Education, Tamagawa University, College of Education, Tokyo, Japan
AF Ablation Complication 4

**Room 11  9:30-10:30 Oral Presentation [O46]**

**O46-1** Rethink the purpose and effectiveness of prophylactic proton pump inhibition after pulmonary vein isolation

Kojiro Ogawa¹, Kenji Kuroki¹, Yasutoshi Shinoda¹, Eikou Sai¹, Mitsuhiro Fukata¹, Keita Masuda¹, Yoshiaki Yui¹, Takeshi Machino¹, Miyako Igarashi¹, Yukio Sekiguchi¹, Akihiko Nogami¹, Kazutaka Aonuma¹, Yuji Mizokami²

¹The Cardiovascular Division, University of Tsukuba, Ibaraki, Japan, ²Department of Gastroenterology, University of Tsukuba, Ibaraki, Japan

**O46-2** Pseudo-aneurysm of the superficial external pudendal artery after pulmonary vein isolation

Tomoka Tabata, Hajime Saeki, Miwa Miyoshi, Miho Kuramoto, Shumpei Kosugi, Hiroyasu Inui, Takashi Mukai, Yusuke Kobayashi, Masami Nakagawa, Nobuyuki Ogasawara, Shinji Hasegawa

JCHO Osaka Hospital, Osaka, Japan

**O46-3** Incidence of pacemaker implantation after radiofrequency catheter ablation for paroxysmal atrial fibrillation with sick sinus syndrome

Tetsuma Kawaji, Satoshi Shizuta, Mitsuhiro Yahata, Kentaro Nakai, Hiroaki Sugiyama, Takeru Makiyama, Koh Ono, Takeshi Kimura

Department of Cardiology, Kyoto University Graduate School of Medicine, Kyoto, Japan

**O46-4** Complication of Atrial Fibrillation Ablation in Patients with Sleep Apnea Syndrome

Ryohsuke Narui, Seiichiro Matsuo, Ken-ichi Tokutake, Ken-ichi Yokoyama, Mika Hioki, Shin-ichi Tanigawa, Michifumi Tokuda, Keiichi Inada, Kenri Shibayama, Michihiro Yoshimura, Teiichi Yamane

Division of Cardiology, Department of Internal Medicine, The Jikei University School of Medicine, Tokyo, Japan

**O46-5** Maintaining sinus rhythm by cardioversion with a low-dose bepridil before catheter ablation did not improve clinical outcome in patients with persistent atrial fibrillation

Tadashi Wada, Masato Murakami, Tomoyuki Tani, Hidetaka Suenaga, Sigeru Saito

Department of Cardiovascular Therapeutics, Shonan Kamakura General Hospital, Kanagawa, Japan
Thursday, 30 July

Room 11 10:30-11:30 Oral Presentation [O47]

**Syncope**

**Chairs**

- Mitsuhiro Nishizaki  
  *Department of Cardiology, Yokohama Minami Kyosai Hospital, Kanagawa, Japan*
- Hitoshi Suzuki  
  *Department of Arrhythmia and Cardiac Pacing, Fukushima Medical University, Fukushima, Japan*

**O47-1**

**Difference in damage degree of vagal fibers between slow pathway ablation and pulmonary vein isolation at postoperative acute phase**

**Makoto Ono**¹, Yasuhiro Yoshiga¹, Takeshi Ueyama¹, Takayoshi Kato¹, Tomoko Fumimoto¹, Hirotomo Ishiguchi¹, Akihiko Shimizu¹, Masafumi Yano¹

¹*Department of Medicine and Clinical Science, Division of Cardiology, Yamaguchi University Graduate School of Medicine, Yamaguchi, Japan, ²Faculty of Health Science, Yamaguchi University Graduate School of Medicine, Yamaguchi, Japan*

**O47-2**

**Patients' Characteristics of Paroxysmal Supraventricular Tachycardia with Syncope**

**Takeshi Kodani**¹, Takanao Mine², Kenki Ashida², Hideyuki Kishima², Tohru Masuyama²

¹*Cardiovascular Division, Kobe Hospital of Japan Seafarers Relief Association, Hyogo, Japan, ²Cardiovascular Division, Department of Internal Medicine, Hyogo College of Medicine, Hyogo, Japan*

**O47-3**

**A Case of Cardiac Asystole Triggered by Temporal Lobe Epilepsy with Amygdala Enlargement**

**Junko Arakawa**¹, Tomoo Nagai¹, Hidenobu Sugano⁴, Akira Hamabe¹, Mai Otsuka¹, Yoshiyuki Takase³, Yodo Gatate², Shunichi Takiguchi², Kazuhiro Nakaya¹, Norio Ishigami², Koji Fukushima³, Hirotsugu Tabata³, Bonpei Takase³, Shuichi Katsushika¹

¹*Department of Cardiology, Japan Self-Defense Forces Central Hospital, Tokyo, Japan, ²Department of Cardiology, Mishuku Hospital, Tokyo, Japan, ³Department of Neurology, Japan Self-Defense Forces Central Hospital, Tokyo, Japan, ⁴Department of Neurosurgery, Juntendo University Hospital, Tokyo, Japan, ⁵Department of Intensive Care Medicine, National Defense Medical College, Saitama, Japan*

**O47-4**

**Paroxysmal third-degree atrioventricular block of unknown etiology in a young patient**

**Hironori Sato**¹, Yuichi Ono¹, Sawako Yada¹, Taku Fukushima¹, Yuki Osaka¹, Kenji Koura¹, Toru Miyazaki¹, Tomoko Manno¹, Ken Kurihara¹, Shigeo Shimizu¹, Kenichiro Otomo¹, Kenzo Hirao²

¹*Division of Cardiology, Ome Municipal General Hospital, Tokyo, Japan, ²Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*
Pilsicainide-enhanced J wave and ST segment elevation in inferior leads in a patient with variant forms of Brugada syndrome

Fuminori Odagiri1, Yuji Nakazato1, Hiroya Shimano2, Rie Takano2, Gaku Sekita3, Takashi Tokano1, Masataka Sumiyoshi1, Hiroyuki Daida3

1Department of Cardiology, Juntendo University Urayasu Hospital, Chiba, Japan, 2Department of Medical Engineering, Juntendo University Urayasu Hospital, Chiba, Japan, 3Department of Cardiology, Juntendo University School of Medicine, Tokyo, Japan, 4Department of Cardiology, Juntendo University Nerima Hospital, Tokyo, Japan
Heart Failure with Chronic Obstructive Pulmonary Disease: Diagnosis and Beta-blocker Therapy

Chair: Wataru Shimizu
Department of Cardiovascular Medicine, Graduate School of Medicine, Nippon Medical School, Tokyo, Japan

LS23-1 Heart Failure with Chronic Obstructive Pulmonary Disease: Diagnosis and Beta-blocker Therapy

Naoki Sato
Cardiology and Intensive Care Unit, Nippon Medical School Musashi-Kosugi Hospital, Kanagawa, Japan

(Mitsubishi Tanabe Pharma Corporation)
AF Ablation 10

Chairs
Hiroshi Sohara
*The Heart Rhythm Center, Hayama Heart Center, Kanagawa, Japan*

Ritsushi Kato
*Department of Cardiology, Saitama Medical University, International Medical Center, Saitama, Japan*

O48-1 Location of the lesion created by cryoballoon technology; Evaluation of ablated area by NavX system

Koichi Inoue, Koji Tanaka, Yuko Toyoshima, Takafumi Oka, Nobuaki Tanaka, Yoshiyuki Orihara, Yasushi Koyama, Atsunori Okamura, Katsuomi Iwakura, Kenshi Fujii
*Sakurabashi Watanabe, Cardiovascular Center, Osaka, Japan*

O48-2 Pulmonary Venography Score Is an Acute Success Predictor of Pulmonary Vein Isolation by Cryoballoon Ablation for Paroxysmal Atrial Fibrillation

Yasuhiro Sasaki, Atsushi Kobori, Yutaka Furukawa
*Department of Cardiology, Kobe City Medical Center General Hospital, Hyogo, Japan*

O48-3 Long-term Outcome Following Bi-atrial Ablation by the Use of Radiofrequency Hot Balloon in Long-Standing Persistent Atrial Fibrillation

Yoshio Yamaguchi, Hiroshi Sohara, Yoshinori Nakamura, Minoru Ihara, Satoshi Higuchi, Sunao Mikura, Shutaro Satake
*The Heart Rhythm Center, Hayama Heart Center, Kanagawa, Japan*

O48-4 The ovality of PV ostia predicts acute success of pulmonary vein isolation using the cryoballoon ablation

Satoru Shimizu, Shigeto Naito, Kohki Nakamura, Eri Goto, Kentaro Minami, Daisuke Kutsuzawa, Masahiro Nakano, Takehito Sasaki, Yoshiaki Yamaguchi, Toshiaki Yano, Koji Kumagai, Shigeru Oshima
*Gunma Prefectural Cardiovascular Center, Gunma, Japan*

O48-5 Feasibility and Efficacy of Cryoballoon Ablation in a Patient with Paroxysmal Atrial Fibrillation - Comparison with Radiofrequency Segmental Pulmonary Vein Antrum Isolation-

Michifumi Tokuda, Seiichiro Matsuo, Kenichi Tokutake, Kenichi Yokoyama, Mika Hioki, Ryohsuke Narui, Shin-ichi Tanigawa, Keiichi Inada, Kenri Shibayama, Michihiro Yoshimura, Teiichi Yamane
*Division of Cardiology, The Jikei University School of Medicine, Tokyo, Japan*
Thursday, 30 July

Room 11  15:10-16:10 Oral Presentation [O49]

AF Ablation 11

Chairs  Shigeto Naito  
Department of Cardiology, Gunma Cardiovascular Center, Gunma, Japan

Kazuhiro Satomi  
Department of Cardiology, Tokyo Medical University Hachioji Medical Center, Tokyo, Japan

O49-1 Long-Term Result of Radiofrequency Hot Balloon Ablation in the Patients with Paroxysmal Atrial Fibrillation; Safety and Rhythm Outcome
Yoshio Yamaguchi, Hiroshi Sohara, Yoshinori Nakamura, Minoru Ihara, Satoshi Higuchi, Sunao Mikura, Shutaro Satake
The Heart Rhythm Center, Hayama Heart Center, Kanagawa, Japan

O49-2 Outcome of the Cryoballoon-based pulmonary vein isolation; Comparison between with and without non-pulmonary vein foci
Yukihiro Inamura1, Junichi Nitta1, Yosuke Hayashi2, Yoshikazu Sato1, Keita Watanabe1, Masahito Suzuki1, Ken Negi1, Tatsuya Hayashi1, Akira Sato1, Tsunehiro Yamato1, Yutaka Matsumura1, Kiiho Asakawa1, Masahiko Goya2, Kenzo Hirao3
1Department of Cardiology, Saitama Red Cross Hospital, Saitama, Japan, 2Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan

O49-3 The Attempt to Achieve the Pulmonary Vein Carina Isolation Using Cryoballoon
Monami Ando1, Yukihiko Yoshida1, Akinori Sairaku2, Ryo Watanabe1, Mayuho Maeda1, Yasuhiro Ogura1, Hirohiko Suzuki1, Hiroki Kamiya1, Mamoru Nanatsuo1, Haruo Hirayama1
1Cardiovascular Center, Nagoya Daini Red Cross Hospital, Aichi, Japan, 2Department of Cardiology, Hiroshima City Hospital, Hiroshima, Japan

O49-4 Acute phase efficacy and safety of cryoballoon ablation of paroxysmal atrial fibrillation in comparison with contact-force guided radiofrequency ablation
Masaomi Kimura1, Daisuke Horiuchi1, Kenichi Sasaki1, Taihei Itoh1, Noriyoshi Kaname1, Yuji Ishida1, Takahiko Kinjo1, Shingo Sasaki1, Ken Okumura1
1Department of Cardiology, Hirosaki University Graduate School of Medicine, Aomori, Japan, 2Department of Advance Management of Cardiac Arrhythmias, Hirosaki University Graduate School of Medicine, Aomori, Japan, 3Department of Internal Medicine, Chikamori Hospital, Kochi, Japan

O49-5 Evaluation of Diaphragmatic Electromyograms in Radiofrequency Ablation of Atrial Fibrillation
Noboru Ichihara, Makoto Araki, Takamitsu Takagi, Jin Iwasawa, Akio Kuroi, Hiroaki Nakamura, Shinsuke Miyazaki, Hiroshi Taniguchi, Hitoshi Hachiya, Yoshito Iesaka
Division of Cardiology, Cardiovascular Center, Tsuchiura Kyodo Hospital, Ibaraki, Japan
AF Ablation 12

**O50-1 Acute AF termination during ablation targeting for the repetitive periodical activation sequence (RePAs) using contact bipolar mapping**

Yuichi Ono, Kenichiro Otomo, Yuki Osaka, Hironori Sato, Sawako Yada, Taku Fukushima, Kenji Koura, Toru Miyazaki, Tomoko Manno, Ken Kurihara, Shigeo Shimizu, Kenzo Hirao, Mitsuaki Isobe

1Department of Cardiology, Ome Municipal General Hospital, Tokyo, Japan, 2Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan, 3Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan

**O50-2 Possible Mechanisms of Effective Rotor Ablation for Chronic Atrial Fibrillation: A Simulation Study**

Takashi Ashihara, Ryo Haraguchi, Shin Inada, Kazuo Nakazawa, Takeshi Tsuchiya, Takanori Yamaguchi, Akira Fukui, Tomoya Ozawa, Tetsuhisa Hattori, Koichi Kato, Minoru Horie

1Department of Cardiovascular Medicine, Shiga University of Medical Science, Shiga, Japan, 2National Cerebral and Cardiovascular Center, Osaka, Japan, 3EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, 4Department of Cardiology and Clinical Examination, Oita University, Oita, Japan

**O50-3 Newly Developed Near-Real-Time Phase Mapping System Called "ExTRa Mapping" Nicely Elucidates Rotors and It Was Preferentially Located at Fibrotic Tissue Border**

Akira Fukui, Takeshi Tsuchiya, Takanori Yamaguchi, Yasutsugu Nagamoto, Shin Inada, Kazuo Nakazawa, Takashi Ashihara

1EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, 2Department of Cardiology and Clinical Examination, Oita University, Oita, Japan, 3Division of Cardiology, Saga-Ken Medical Centre Koseikan, Saga, Japan, 4National Cerebral and Cardiovascular Center Research Institute, Osaka, Japan, 5Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Shiga, Japan

**O50-4 Nearly-missed Versus On-target Rotor Ablation of the Stretched-related Atrial Fibrillation in the Presence of Cholinergic Stimulation**

Masatoshi Yamazaki, Haruo Honjo, Uma Avula, Takashi Ogawa, Kaichiro Kamiya, Jerome Kalifa

1RIEM, Nagoya University, Aichi, Japan, 2CAR, University of Michigan, Ann Arbor, MI, USA
Low Voltage Zone (LVZ) Is Closely Related to Repetitively Appearing Rotors: An Analysis with a Novel Phase Mapping System Called "ExTRa Mapping"

Akira Fukui¹, Takeshi Tsuchiya¹, Takanori Yamaguchi², Yasutsugu Nagamoto³, Shin Inada⁴, Kazuo Nakazawa⁴, Takashi Ashihara⁵

¹EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan, ²Department of Cardiology and Clinical Examination, Oita University, Oita, Japan, ³Division of Cardiology, Saga-Ken Medical Centre Koseikan, Saga, Japan, ⁴National Cerebral and Cardiovascular Center Research Institute, Osaka, Japan, ⁵Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science, Shiga, Japan
教育セミナー（心臓構造学レクチャー２）

不整脈の理解に必要な心臓の解剖（2）：左心系の解剖

井川 修
日本医科大学多摩永山病院内科・循環器内科
Thursday, 30 July

Event Hall  11:50-12:50 Luncheon Seminar24 [LS24]

Cardiac Anatomy for Device Therapy

Chair  Yuji Nakazato  
Department of Cardiology, Juntendo University Urayasu Hospital, Chiba, Japan

LS24-1 Cardiac Anatomy for Device Therapy

Osamu Igawa  
Department of Internal Medicine and Cardiology, Nippon Medical School Tama Nagayama Hospital, Tokyo, Japan

(St. Jude Medical Japan Co., Ltd.)
**AF 7**

**Chairs**  
Yumie Matsui  
*Department of Cardiology, Saiseikai Izuo Hospital, Osaka, Japan*  
Kiyoshi Ohtomo

**P13-1**  
*Is the incidence of iatrogenic atrial septal defects using radiofrequency transseptal needle higher than conventional transseptal needle?*

Shunichi Higashiya¹, Hirosuke Yamaji¹, Takashi Murakami², Shigeshi Kamikawa¹, Hiroshi Kawamura², Masaaki Murakami², Kazuyoshi Hina²  
¹Heart Rhythm Center, Okayama Heart Clinic, Okayama, Japan, ²Department of Cardiology, Okayama Heart Clinic, Okayama, Japan

**P13-2**  
*Efficacy and Safety of Minimal New Oral Anticoaglants Interruption Strategy in Patients Undergoing Atrial Fibrillation Ablation*

Minako Ohara, Kensuke Matsumoto, Yutaka Take, Kimikazu Banba, Yoshimasa Tsushima, Tohru Ohe  
*The Sakakibara Heart Institute of Okayama, Okayama, Japan*

**P13-3**  
*Comparison of the Procedure Time and Success Rate for the Different Rhythms during Catheter Ablation of Atrial Fibrillation*

Hitomi Yuzawa, Tadashi Fujino, Toshiki Asada, Hideki Koike, Masaya Shinohara, Ken Kitahara, Toshio Kinoshita, Takeya Suzuki, Atsuko Abe, Hideyuki Sato, Shunji Fukunaga, Kenzaburo Kobayashi, Takanori Ikeda  
*Department of Cardiovascular Medicine, Toho University Faculty of Medicine, Tokyo, Japan*

**P13-4**  
*Safety of Non-Vitamin K Antagonist Oral Anticoagulants Versus Warfarin for Periprocedural Anticoagulation in Patients Undergoing Radiofrequency Ablation for Atrial Fibrillation*

Yasuaki Tanaka, Hideharu Okamatsu, Takuo Tsurugi, Junjiroh Koyama, Toshihiro Honda, Koichi Nakao  
*Division of Cardiology, Saiseikai Kumamoto Hospital, Kumamoto, Japan*

**P13-5**  
*Impact of Cryoballoon and Radiofrequency Energy on the Biomarker of Myocardial Injury after Ablation of Atrial Fibrillation*

Shin-ichi Tanigawa, Seiichiro Matsuo, Ken-ichi Tokutake, Ken-ichi Yokoyama, Ryohsuken Narui, Mika Hioki, Seigo Yamashita, Michifumi Tokuda, Keiichi Inada, Kenri Shibayama, Satoru Miyanaga, Kenichi Sugimoto, Teiichi Yamane  
*The Department of Cardiology, The Jikei University School of Medicine, Tokyo, Japan*
AF 8

**Chairs**
Yoshihisa Enjoji  
*Department of Cardiology, Tokyo Heart Center, Tokyo, Japan*

Tatsuya Onuki  
*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

**P14-1** Perimtrial Atrial Flutter is Rare but Dominant Type of Atrial Tachyarrhythmia after Box Isolation for Atrial Fibrillation

Taku Nishida, Akihiro Takitsume, Kenji Onoue, Satoshi Okayama, Yukiji Takeda, Makoto Watanabe, Hiroyuki Kawata, Rika Kawakami, Yoshihiko Saito  
*The First Department of Internal Medicine, Nara Medical University, Nara, Japan*

**P14-2** Withdrawn

**P14-3** Features of Inducible Tricuspid Isthmus Dependent Atrial Flutter and the Clinical Implications after Ablation in Patients with Atrial Fibrillation

Naoto Kino, Toshiya Kurotobi, Takao Tsuchida, Masataka Yoshida, Yoshihisa Shimada  
*Cardiovascular Division, Shiroyama Hospital, Osaka, Japan*

**P14-4** Catheter Ablation for Young Patients with Atrial Fibrillation

*Department of Cardiology, Nagoya Daini Red Cross Hospital, Aichi, Japan*

**P14-5** Weak contact is the cause of atrial fibrillation recurrence after pulmonary vein isolation

Ken Terata¹, Yoshihisa Abe¹, Haruwo Tashiro¹, Ken Kadowaki¹, Takashi Koyama², Hiroshi Ito²  
¹*Department of Cardiology, Akita Medical Center, Akita, Japan*, ²*Division of Cardiovascular Medicine and Respiratory Medicine, Akita University Graduate School of Medicine, Akita, Japan*
AF 9

Chairs

Akira Sato
Department of Cardiology, Saitama Red Cross Hospital, Saitama, Japan

Seiji Fukamizu
Department of Cardiology, Tokyo Metropolitan Hiroo Hospital, Tokyo, Japan

P15-1 Atrial Fibrillation Termination Site in the Left Atrium is Associated with Fibrillatory Cycle Length Gradient between the Left and Right Atrium

Mayumi Masumura1, Yoshihide Takahashi1, Shinsuke Iwai1, Naoyuki Miwa1, Yasuhiro Sato1, Kenzo Hirao2
1Department of Cardiology, National Disaster Medical Center, Tokyo, Japan, 2Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan

P15-2 The difference of heart rate variability in cryoballoon ablation group compared with radiofrequency ablation group for atrial fibrillation

Akira Sato, Junichi Nitta, Yosuke Hayashi, Yoshikazu Sato, Keita Watanabe, Yukihiro Inamura, Masahito Suzuki, Ken Negi, Tatsuya Hayashi, Tsunehiro Yamato, Yutaka Matsumura, Kihiro Asakawa
Department of Cardiology, Saitama Red Cross Hospital, Saitama, Japan

P15-3 Signal-averaged P-wave Duration Measured by Signal-averaged Electrocardiogram Indicates Correlation with Left Atrium Low Voltage Areas

Daisuke Kutsuzawa, Koji Kumagai, Satoru Shimizu, Yoshiaki Yamaguchi, Toshiaki Yano, Masahiro Nakano, Kentaro Minami, Takehito Sasai, Kohki Nakamura, Shigeto Naito, Shigeru Oshima
Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan

P15-4 Reduced residual conduction gaps and favorable outcome in contact force-guided circumferential pulmonary vein isolation

Taihei Itoh1, Shingo Sasaki2, Masaomi Kimura1, Daisuke Horiuchi1, Yuji Ishida1, Takahiko Kinjo1, Ken Okumura1
1The Department of Cardiovascular Medicine, University of Hirosaki Graduate School of Medicine, Aomori, Japan, 2The Department of Advanced Management of Cardiac Arrhythmias, University of Hirosaki Graduate School of Medicine, Aomori, Japan
Improvement of quality of life by pulmonary vein isolation in persistent atrial fibrillation patients

Masaru Kato, Junichiro Miake, Kazuyoshi Ogura, Kazuhiko Iitsuka, Takehito Kondo, Kazuhiro Yamamoto

Division of Cardiovascular Medicine, Department of Molecular Medicine and Therapeutics, Faculty of Medicine, Tottori University, Tottori, Japan
AF 10

Chairs
Kazuhiro Tanaka
Heart Center Arrhythmia Unit, Kasukabe Chuo General Hospital, Saitama, Japan
Norishige Morita
Division of Cardiology, Department of Medicine, Tokai University Hachioji Hospital, Tokyo, Japan

P16-1 Lack of correlation between left atrial voltage on coronary sinus and ablation outcome in patients with persistent atrial fibrillation
Yoshimitsu Otsuka1, Koji Azegami1, Kazuya Murata1, Keita Handa1, Shingo Watanabe1, Tae Ishikawa1, Kaoru Sakurai1, Kaoru Okishige1, Kenzo Hirao2, Mitsuaki Isobe2
1Department of Cardiovascular Medicine, Shinyurigaoka General Hospital, Kanagawa, Japan, 2Department of Cardiovascular Medicine, Tokyo Medical and Dental University, Tokyo, Japan

P16-2 Successful Cardioversion after Pulmonary Vein Isolation in Cardioversion-Tolerant Persistent and Paroxysmal Atrial Fibrillation
Hiroshi Shimizu, Yusuke Tamura
Cardiology, Saiseikai Niigata Second Hospital, Niigata, Japan

P16-3 A successful case of ablation of pulmonary vein tachycardia from the origin of right superior pulmonary vein after right pulmonary vein isolation
Hiroki Yorifuji, Yasayuki Egami, Nobuhiko Makino, Ryu Shutta, Masami Nishino
Osaka Rosai Hospital, Osaka, Japan

P16-4 Local Electrogram of Successful Ablation Site of Premature Ventricular Contraction with Endocardial Origin
Yosuke Nakatani1, Koichi Mizumaki1, Shigeto Naito2, Koji Kumagai2, Kohki Nakamura2, Kentaro Minami1, Shigeru Oshima1, Hiroshi Inoue1
1The Second Department of Internal Medicine, University of Toyama, Toyama, Japan, 2Division of Cardiology, Gunma Prefectural Cardiovascular Center, Gunma, Japan

P16-5 A case with arrhythmogenic potential for atrial fibrillation within the remnant of a pulmonary vein
Shigeki Hiramatsu, Katsumasa Sato, Yoshimasa Morimoto, Hiroki Yamane, Arata Hagikura, Yuetsu Kikuta, Masahito Taniguchi, Kenji Goto, Hideo Takebayashi, Seiichi Haruta
Fukuyama Cardiovascular Hospital, Hiroshima, Japan
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<thead>
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<tr>
<td>P17-1</td>
<td>The Safety and Efficacy of Superior Vena Cava Isolation by Use of Irrigated Ablation System with Electro-Anatomical Mapping for Paroxysmal Atrial Fibrillation</td>
<td>Kazuhiko Iitsuka, Junichiro Miake, Kazuyoshi Ogura, Masaru Kato, Takehito Kondo, Kazuhiro Yamamoto</td>
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<td>Division of Cardiovascular Medicine, Department of Molecular Medicine and Therapeutics, Faculty of Medicine, Tottori University, Tottori, Japan</td>
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<td>P17-2</td>
<td>The ablation of ridge from the left atrial appendage in the extensive encircling pulmonary vein isolation facilitates mitral isthmus ablation</td>
<td>Masaya Fujita, Shinji Kaneko, Shingo Narita, Tomoaki Haga, Daisuke Hayashi, Taiki Ohashi, Ryuji Kubota, Masanori Shinoda</td>
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<td>Toyota Kosei Hospital, Aichi, Japan</td>
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<td>P17-3</td>
<td>Acute result of cryoballoon ablation for persistent atrial fibrillation compared to for paroxysmal atrial fibrillation</td>
<td>Yasuhiro Ogura, Yukihiro Yoshida, Hirohiko Suzuki, Monami Ando, Ryo Watanabe, Masayuki Nakamura, Ayumi Ito, Yu Yoshiki, Natsu Sekioka, Shunsuke Eguchi, Mayuho Maeda, Yutaka Aoyama, Hiroki Kamiya, Mamoru Nanasato, Haruo Hirayama</td>
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<td>Cardiology Center, Nagoya Daini Red Cross Hospital, Aichi, Japan</td>
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<tr>
<td>P17-4</td>
<td>Evaluation of High Contact Force-based Radio Frequency Ablation in Patients with Persistent Atrial Fibrillation</td>
<td>Yu Nomura, Chikara Oshiro</td>
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<td>Cardiology, Chubu Tokushukai Hospital, Okinawa, Japan</td>
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<td>P17-5</td>
<td>Sinus Rhythm Maintenance by Catheter Ablation Can Improve Cardiac Function in Patients with Persistent Atrial Fibrillation</td>
<td>Yoshiaki Inoue, Kinya Shirotta, Hiroshige Ishii, Fumiyo Tsunoda, Kiyotaka Yanagihara, Masayuki Hirai, Asao Mimura</td>
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<td>Department of Cardiovascular Medicine, Matsue Red Cross Hospital, Shimane, Japan</td>
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**Thursday, 30 July**

**Chaired Poster (1st Lane)** 14:30-15:05 Chaired Poster Session [P17]

**AF 11**

**Chairs**

Takeshi Tsuchiya  
*EP Expert Doctors-Team Tsuchiya, Kumamoto, Japan*

Taku Asano  
*Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan*

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**P17-1**

The Safety and Efficacy of Superior Vena Cava Isolation by Use of Irrigated Ablation System with Electro-Anatomical Mapping for Paroxysmal Atrial Fibrillation

Kazuhiko Iitsuka, Junichiro Miake, Kazuyoshi Ogura, Masaru Kato, Takehito Kondo, Kazuhiro Yamamoto

Division of Cardiovascular Medicine, Department of Molecular Medicine and Therapeutics, Faculty of Medicine, Tottori University, Tottori, Japan

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**P17-2**

The ablation of ridge from the left atrial appendage in the extensive encircling pulmonary vein isolation facilitates mitral isthmus ablation

Masaya Fujita, Shinji Kaneko, Shingo Narita, Tomoaki Haga, Daisuke Hayashi, Taiki Ohashi, Ryuji Kubota, Masanori Shinoda

Toyota Kosei Hospital, Aichi, Japan

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**P17-3**

Acute result of cryoballoon ablation for persistent atrial fibrillation compared to for paroxysmal atrial fibrillation


Cardiology Center, Nagoya Daini Red Cross Hospital, Aichi, Japan

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**P17-4**

Evaluation of High Contact Force-based Radio Frequency Ablation in Patients with Persistent Atrial Fibrillation

Yu Nomura, Chikara Oshiro

Cardiology, Chubu Tokushukai Hospital, Okinawa, Japan

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**P17-5**

Sinus Rhythm Maintenance by Catheter Ablation Can Improve Cardiac Function in Patients with Persistent Atrial Fibrillation

Yoshiaki Inoue, Kinya Shirotta, Hiroshige Ishii, Fumiyo Tsunoda, Kiyotaka Yanagihara, Masayuki Hirai, Asao Mimura

Department of Cardiovascular Medicine, Matsue Red Cross Hospital, Shimane, Japan
Chaired Poster (1st Lane)  15:05-15:33 Chaired Poster Session [P18]

**Imaging**

**Chairs**
- **Taketsugu Tsuchiya**
  Division of Trans-catheter Cardiovascular Therapeutics, Kanazawa Medical University Hospital, Ishikawa, Japan
- **Tetsuo Sasano**
  Department of Biofunctional Informatics, Tokyo Medical and Dental University, Tokyo, Japan

**P18-1**

**Relationship between sympathetic nervous system innervation and tachyarrhythmia in patients with a history of paroxysmal palpitation**

Yasushi Akutsu¹, Taku Asano², Youichi Kobayashi²

¹Department of Internal Medicine (Cardiology), Clinical Research Center for Clinical Pharmacology & Therapeutics, Showa University Karasuyama Hospital, Tokyo, Japan, ²Division of Cardiology, Department of Medicine, Showa University School of Medicine, Tokyo, Japan

**P18-2**

**Targeted Endomyocardial Biopsy Using Intracardiac Echocardiography and Electroanatomical Voltage Mapping in Cardiac Sarcoidosis Forming a Right Ventricular Tumor**

Kazuhiro Kimura, Koji Yoshie, Wataru Shoin, Takahiro Takeuchi, Ayako Okada, Morio Shoda, Uichi Ikeda

Department of Cardiovascular Medicine, Shinshu University School of Medicine, Nagano, Japan

**P18-3**

**Delayed imaging of multidetector computed tomography may be adequate enough to detect intracardiac thrombi in atrial fibrillation ablation**

Shinji Ishimaru¹, Mariko Kawasaki¹, Risa Kakinoki¹, Masahiro Takahata¹, Motohito Tadokoro¹, Shunsuke Kitani¹, Tepppei Sugaya¹, Tadashi Igarashi², Hiroaki Okabayashi¹, Jungsung Fujii¹, Yasumi Igarashi³, Keiichi Igarashi¹, Masaki Tabata²

¹Division of Cardiology, Cardiovascular Center, Japan Community Health Care Organization Hokkaido Hospital, Hokkaido, Japan, ²Division of Medical Engineering, Japan Community Health Care Organization Hokkaido Hospital, Hokkaido, Japan

**P18-4**

**Feasibility of Temporary Figure of Eight Subcutaneous Suture after Femoral Vein Puncture**

Yae Matsuo¹, Petr Neuzil², Yoshiaki Kaneko¹, Masahiko Kurabayashi¹

¹Department of Cardiology, Gunma University Hospital, Gunma, Japan, ²Department of Cardiology, Homolka Hospital, Czech Republic
Thursday, 30 July

**Chaired Poster (1st Lane)  15:33-16:22 Chaired Poster Session [P19]**

**Anticoagulant**

**Chairs**
- Toshikazu Funazaki
  Saiseikai Kawaguchi General Hospital, Saitama, Japan
- Kenichiro Otomo
  Department of Cardiology, Ome Municipal General Hospital, Tokyo, Japan

**P19-1 Higher Amount of Heparin with Apixaban Compared to Warfarin and Other Non-VKA Oral Anticoagulants in the peri-Ablation for Atrial Fibrillation**

Toshio Kinoshita, Tadashi Fujino, Hideki Koike, Masaya Shinohara, Toshiki Asada, Ken Kitahara, Hitomi Yuzawa, Takeya Suzuki, Hideyuki Sato, Atsuko Abe, Shunji Fukunaga, Kenzaburo Kobayashi, Takanori Ikeda

Department of Cardiovascular Medicine, Toho University Faculty of Medicine, Tokyo, Japan

**P19-2 Which Peptic Ulcer Agent Reduces Gastrointestinal Adverse-effects Caused by Dabigatran?**

Satoshi Tokimasa¹, Yoshiyuki Hama², Yuji Matsudo², Yoshihide Fujimoto³, Toshiharu Himi⁴, Yuuki Fujiwara⁵, Juntarou Deyama⁶, Ken Umetani⁷, Yoshio Kobayashi⁸

¹Department of Cardiovascular Medicine, Chiba University, Chiba, Japan, ²Department of Cardiology, Kimitsu Chuo Hospital, Chiba, Japan, ³Department of Cardiology, Yamanashi Prefectural Central Hospital, Yamanashi, Japan

**P19-3 Prescription Trending, Safety, and Efficacy of New Oral Anticoagulants (NOACs) in a Single Facility**

Yoshinari Goseki, Yoshinao Yazaki, Ken Takarada, Akira Yamashina

Department of Cardiology, Tokyo Medical University, Tokyo, Japan

**P19-4 The effect of the cessation of NOACs periablation on anticoagulation during AF ablation**

Takatoshi Shigeta¹, Hiroyuki Okada¹, Masahiro Hada¹, Masao Yamaguchi¹, Tatsuya Fujinami¹, Go Ishimaru¹, Hiroshi Inagaki¹, Nobuo Toshida¹, Toshihiko Takamoto¹, Kenzo Hirao²

¹Cardiovascular Medicine, Soka Municipal Hospital, Saitama, Japan, ²Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan

**P19-5 How do we choose one from among 3 NOACs in patients with atrial fibrillation?**

Kazuya Ishibashi, Ayumu Fujioka, Yoshiaki Akakabe

Department of Cardiology, Saiseikai Kyoto Hospital, Kyoto, Japan
P19-6  Efficacy and Safety of Oral Rivaroxaban and Dabigatran in Elderly Patients with Non-Valvular Atrial Fibrillation

Naohiko Sahara, Yoshinari Enomoto, Yasutake Toyoda, Takahito Takagi, Yuriko Narabayashi, Hikari Hashimoto, Naoshi Ito, Shingo Kujime, Takao Sakata, Mahito Noro, Kaoru Sugi
Division of Cardiovascular Medicine Toho University Ohashi Medical Center, Tokyo, Japan

P19-7  Real world of the pharmacological treatment of anti-thrombotic therapy in atrial fibrillation cases in clinical practice

Nitaro Shibata
Shinjuku Mitsui Building Clinic, Tokyo, Japan
Thursday, 30 July

VT 3

Chaired Poster (2nd Lane)  9:00-9:35 Chaired Poster Session [P20]

**Chairs**
- **Tomoo Harada**
  Department of Cardiology, St. Marianna University School of Medicine, Kanagawa, Japan
- **Motoki Hara**
  Department of Cardiology, Higashihiroshima Medical Center, Hiroshima, Japan

**P20-1**
A case of successful epicardial ablation for sustained ventricular tachycardia associated with dilated cardiomyopathy

**Masatsugu Nozoe**, Satoshi Tsujioka, Yoji Mannouji, Takeshi Serikawa, Nobuhiro Suematsu, Tooru Kubota, Masanori Okabe, Yusuke Yamamoto, Kyoko Soejima

1 Division of Cardiology, Cardiovascular and Aortic Center, Saiseikai Fukuoka General Hospital, Fukuoka, Japan,
2 Division of Cardiology, Kyorin University, Tokyo, Japan

**P20-2**
Usefulness of Intracardiac Echocardiography (CARTO SOUND) to Guide Ablation for Ventricular Arrhythmia Originated from Aortic Cusp

**Fumito Miyoshi**, Miwa Kikuchi, Kaoru Tanno

Division of Cardiology Department of Medicine Showa University Koto Toyosu Hospital, Tokyo, Japan

**P20-3**
Radiofrequency Catheter Ablation in Three Young Patients with Cardiac Arrest Induced by Ventricular Tachyarrhythmias

**Yasuhiko Hori**

Department of Cardiology, Matsudo City Hospital, Chiba, Japan

**P20-4**
A case of ventricular tachycardia originated from the Purkinje fiber near the posterior papillary muscle

**Mizuki Kato**, Minoru Sato, Keisuke Otsu, Asami Kikuchi, Tsuneaki Honma, Takuya Myojo, Harutatsu Muto, Hiroshi Komatsu, Takeaki Kaneko, Masaaki Fujita, Junichi Teranishi, Takashi Takenaka

Division of Cardiology, Hokkaido Medical Center, Hokkaido, Japan

**P20-5**
The case that left ventricle posterior papillary muscle had a hard time for the PVC ablation of the origin

**Shioto Yasuda**, Shunsuke Yoda, Hirotaka Noda, Taku Yokoyama, Takeshi Arita, Keita Odashiro, Toru Maruyama, Koichi Akashi, Mitsuhiro Fukata, Kazutaka Aonuma

1 The First Department of Internal Medicine, University of Kyushu, Fukuoka, Japan,
2 Faculty of Arts and Science, University of Kyushu, Fukuoka, Japan,
3 Cardiovascular Division, Institute of Clinical Medicine, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Ibaraki, Japan
**P21-1** Development of an innovative reporting system that enables the automatic archiving of remote monitoring alerts of pacing devices

Tetsuyuki Manaka¹, Morio Shoda¹, Koichiro Ejima¹, Daigo Yagishita¹, Ken Kato¹, Ryuta Henmi¹, Nobuhisa Hagiwara¹, Akihiro Tsukamoto², Kunio Yoshi Shinya³

¹Department of Cardiology, Tokyo Women’s Medical University, Tokyo, Japan, ²Toshiba Medical Systems Inc., Tochigi, Japan, ³Soft Quality Inc., Kyoto, Japan

**P21-2** Application of standard operating procedure for CIED patient care with remote monitoring system

Toru Asai¹, Kiyokazu Shimizu¹, Koji Arata², Katsuhiro Otsubo³, Kazufumi Okumura³, Hiroyuki Nagase³, Kentaro Mase³, Yosuke Hayashi³

¹Department of Cardiology, Ichinomiya Municipal Hospital, Aichi, Japan, ²Department of Clinical Engineering, Ichinomiya Municipal Hospital, Aichi, Japan

**P21-3** The impact of catheter ablation for avoiding pacemaker implantation in patients with bradycardia-tachycardia syndrome

Yoshikazu Watanabe, Yukiko Nakano, Takehito Tokuyama, Hiroshi Kawazoe, Hiroya Matsumura, Shunsuke Tomomori, Shinji Kishimoto, Yasuki Kihara

Department of Cardiovascular Medicine, Hiroshima University Graduate School of Biomedical and Health Sciences, Hiroshima, Japan

**P21-4** Estimation of the location of implantable cardiac electrical device leads using transthoracic 3-dimentional echocardiography

Akihiro Sunaga, Masaharu Masuda, Takashi Kanda, Yasuhiro Matsuda, Masashi Fujita, Osamu Iida, Shin Okamoto, Takayuki Ishihara, Kiyonori Nanto, Tatsuya Shiraki, Takuya Tsujimura, Koji Yanaka, Shota Okuno, Masaaki Uematsu

Kansai Rosai Hospital Cardiovascular Center, Hyogo, Japan

**P21-5** A review of safety and efficacy of oblique extrathoracic puncture method in device implantation and lead addition

Risa Kakinoki, Shinji Ishimaru, Mariko Kawasaki, Motohito Tadokoro, Shunsuke Kitani, Teppei Sugaya, Tadashi Igarashi, Hiroaki Okabayashi, Jungo Furuya, Yasumi Igarashi, Keiichi Igarashi

Cardiovascular Center, JCHO Hokkaido Hospital, Hokkaido, Japan
ICD（メディカルプロフェッショナル）

座長　須藤恭一
新山手病院 心臓血管外科
大森裕也
日本医科大学 心臓血管外科

MP1-1 設定レートを下回るslow VT中に短い連結期のPVCが入ったことによる不適切作動の１例
小林 涼1, 竹内 均1, 吉沢 崇1, 芳賀 拓1, 山口 智也1, 高橋美帆1, 飯塚 宏1, 水口紀隆1, 東祐圭2
1岡村記念病院ME科, 2岡村記念病院不整脈センター

MP1-2 VTzone180bpm、VFzone250bpm設定時のATP治療後からショック治療までの時間の検討
熊谷英明1, 富永新平2, 山崎平2, 小池直樹3, 小坂利幸4
1昭和伊南総合病院臨床工学室, 2昭和伊南総合病院循環器科, 3甲府共立病院循環器科, 4おさか循環器クリニック

MP1-3 CRTDにおける心室ペーシング後のブランキング延長によるT波オーバーセンス回避の方法
一柳 宏1, 因田恭也2, 吉田直樹2, 佐藤有紀1, 服部哲也1
1名古屋大学医学部附属病院臨床工学技術部, 2名古屋大学医学系研究科循環器内科学

MP1-4 パルス幅固定化により除細動閾値が低減したBrugada症候群の1例
島野寛也1, 戸叶隆司1, 高野絵1, 小田切史徳2, 小松さやか3, 田淵晴名1, 関田 学2, 住吉正孝4, 中里祐二3, 代田浩之1
1順天堂大学医学部附属浦安病院臨床工学室, 2順天堂大学医学部附属浦安病院循環器内科, 3順天堂大学医学部附属順天堂循環器内科, 4順天堂大学医学部附属順天堂循環器内科

MP1-5 ICD診断機能により虚血イベントを疑い早期発見ができた1例〜遠隔モニタリングSTエピソード〜
奥田泰三1, 梶尾仁司2, 土屋邦彦3, 大久保宗則2, 三宅泰次
岐阜ハートセンター臨床工学技士科
アブレーション1（メディカルプロフェッショナル）

座長　吉田明弘
北嶺厚総合医療センター　循環器内科
松尾征一郎
東京慈恵会医科大学附属病院　循環器内科

MP2-1 心房細動アブレーションを受ける患者への術前訪問の効果に関する検討
殿川麻美、慶田毅彦、藤田雅樹、内間夏代、松尾征一郎、榎本晃子
江戸川病院循環器内科

MP2-2 3Dマッピングシステムを用いた心房細動アブレーションにおけるCT Merge法2種の比較
根津将夫1、横山慎二1、宮下真希1、吉田悠介1、田辺貴幸1、吉田譲1、関口教1、長瀬孝彦2、松本万夫2、加藤律史2
1埼玉医科大学国際医療センターMEサービス部、2埼玉医科大学国際医療センター心臓内科

MP2-3 肺静脈隔離術後にZipサージカルクロージャー®を使用した止血効果
齊藤彩乃1、野崎麻衣1、渡邉規子1、岡元弥生1、梅野直美1、稲葉理2、山下周2、平尾龍彦2
1武蔵野赤十字病院看護部、2武蔵野赤十字病院循環器科

MP2-4 当院における冷凍カテーテルアブレーション後の穿刺部出血発症率の検討
宮本亜紀1、鈴之原寛代1、田中宣晴1、井上耕一2
1特定医療法人渡辺医学会桜橋渡辺病院看護部、2特定医療法人渡辺医学会桜橋渡辺病院

MP2-5 当院における横隔膜筋電位モニタリング（CMAP）の有用性
中農陽介1、小堀敦志1、佐々木康博2、石井利英1、田中雄己1、山城悠美1、中村悟士1、水上哲也2、坂地一朗1、吉川裕2
1神戸市立医療センター中央市民病院臨床工学技術部、2神戸市立医療センター中央市民病院循環器内科
ECG Assessment 2

Chairs
Yuji Kasamaki
Department of Internal Medicine, Nihon University Itabashi Hospital, Tokyo, Japan
Hiroko Nawata
Department of Internal Medicine, Edogawa Hospital, Tokyo, Japan

P22-1 Risk Stratification of Ventricular Fibrillation in Brugada Syndrome Using Non-invasive Scoring Methods
Hiroshi Kawazoe, Yukiko Nakano, Takehito Tokuyama, Akinori Sairaku, Hiroya Matsumura, Shunsuke Tomomori, Shinji Kishimoto, Yasuki Kihara
Department of Cardiovascular Medicine, Hiroshima University Graduate School of Biomedical and Health Sciences, Hiroshima, Japan

P22-2 Usefulness of Implantable Loop Recorder in detecting arrhythmic or non-arrhythmic events with unexplained syncope
Takeshi Matsuura, Kazumasa Adachi, Yasutaka Hirayama, Hideya Suehiro, Tomomi Akita, Yukinori Kato, Hiroki Takada, Kohei Kamemura, Akira Matsuura, Masahito Kawata, Susumu Sakamoto, Kenji Fukui, Rieko Tsuboi

Division of Cardiology, Akashi Medical Center, Hyogo, Japan, Division of Clinical Engineering, Akashi Medical Center, Hyogo, Japan

P22-3 Age-dependent Difference of Baroreflex Sensitivity in Patients with Reflex Syncope
Yosuke Miwa, Kyoko Soejima, Toshiaki Sato, Akiko Ueda, Ikuko Togashi, Kyoko Hoshida, Satoshi Higuchi, Noriko Matsushita, Yuichi Momose, Hideki Sato, Hideaki Yoshino
Second Department of Internal Medicine, Kyorin University School of Medicine, Tokyo, Japan, Clinical Laboratory, Kyorin University Hospital, Tokyo, Japan

P22-4 QRST angle as a predictor of LV dysfunction and dyssynchrony
Munehiro Iiya, Masato Shimizu, Kikou Ri, Rei Masuda, Rena Nakamura, Yasuaki Hada, Kuniaki Nakano, Tomomasa Takamiya, Hiroshi Shimada, Hiroyuki Fuji, Noriyoshi Yamawake, Mitsuhiro Nishizaki, Harumizu Sakurada, Mitsuaki Isobe, Masayasu Hiraoka

Yokohama Minami Kyosai Hospital, Kanagawa, Japan, Ohkubo Hospital, Tokyo, Japan, Tokyo Medical and Dental University, University Hospital of Medicine, Tokyo, Japan, Toride Kitasoma Medical Center Hospital, Ibaraki, Japan

P22-5 Distribution of the measurement of the synthesized additional chest lead of electrocardiogram in schoolchildren screening
Jiro Suto, Norio Takeuchi, Satoshi Yasukouchi
Biomedical Instrument Business Operations, Nihon Kohden Corporation, Tokyo, Japan, Circulation Internal Medicine, Nagano Children's Hospital, Nagano, Japan, Takeuchi Children’s Clinic
Chaired Poster (2nd Lane)  15:05-15:40 Chaired Poster Session [P23]

SVT 1

Chairs  Fumio Suzuki  
*Department of Cardiovascular Medicine, Fukuju Hospital, Tokyo, Japan*

Masamitsu Adachi  
*Department of 4th Cardiology, Sanin Rosai Hospital, Tottori, Japan*

P23-1  Pericardial effusion from a right atrial appendage pocket

Erika Yamashita¹, Kazuyuki Tanoue¹, Norihito Nuruki¹, Masahiro Sonoda¹, Osamu Igawa²

¹2nd Division of Cardiovascular Medicine, National Hospital Organization, Kagoshima Medical Center, Kagoshima, Japan, ²Department of Internal Medicine and Cardiology Nippon Medical School Tama-Nagayama Hospital, Tokyo, Japan

P23-2  A case of supraventricular tachycardia that was difficult to distinguish atrio-ventricular junctional tachycardia and adenosine-sensitive atrial reentrant tachycardia

Keisuke Miyajima, Hayato Otani, Tomoaki Sakakibara
*Cardiology, Seirei Mikatahara General Hospital, Shizuoka, Japan*

P23-3  A case report of atrioventricular nodal reentrant tachycardia with the multiple pathway affected by isoproterenol and sedation

Hajime Saeki, Miwa Miyoshi, Miho Kuramoto, Shumpei Kosugi, Tomoka Tabata, Hiroyasu Inui, Takashi Mukai, Yusuke Kobayashi, Masami Nakagawa, Nobuyuki Ogasawara, Shinji Hasegawa
*JCHO Osaka Hospital, Osaka, Japan*

P23-4  Safety and efficacy of slow pathway ablation with irrigated catheter

Takuro Nishimura, Yasuhiro Shirai, Susumu Tao, Takeshi Sasaki, Tetsuo Sasano, Mihoko Kawabata, Masahiko Goya, Kenzo Hirao
*Heart Rhythm Center, Tokyo Medical and Dental University, Tokyo, Japan*

P23-5  A Case Report of Successful Catheter Ablation of Polymorphic Wide QRS Tachycardia

Yoshimasa Morimoto¹, Shigeki Hiramatsu¹, Arata Hagikura¹, Katsumasa Sato¹, Shogo Mukai², Seiichi Haruta¹

¹Department of Cardiology, Fukuyama Cardiovascular Hospital, Hiroshima, Japan, ²Department of Cardiovascular Surgery, Fukuyama Cardiovascular Hospital, Hiroshima, Japan
ペースメーカー（メディカルプロフェッショナル）

座長  丹野 郁
昭和大学東京豊洲病院 循環器内科
橋本賢一
防衛医科大学校 集中治療部

MP3-1 デバイス植え込み患者における心房細動のリスクファクターと心房細動発生との関係
脇田亜由美1, 仲村健太郎2, 福山信隆1, 萬正寛子1, 山内淳熙1, 柴田祐治郎1, 具志幸樹1, 翁長加世子1, 花城 綾1, 三田勇吾1, 國場太輔1, 兵庫大和2, 仁愛会浦添総合病院ME科, 2仁愛会浦添総合病院循環器内科

MP3-2 ペースメーカー植込み時のPSAによる測定と本体接続後のプログラムによる測定の波高値の変動の傾向
中島 修1, 吉田幸司1, 富澤直樹1, 鈴木綾子1, 佐藤 明2, 新田順一2
1さいたま赤十字病院臨床工学技術課, 2さいたま赤十字病院循環器科

MP3-3 植込み型デバイス自動閾値測定機能の評価
岩藤 晋1, 坂手克彦1, 竹中祐樹1, 三好章仁2, 久保元基2, 西井伸洋2
1岡山大学病院臨床工学部, 2岡山大学病院循環器内科

MP3-4 通常の心房リードを使用した際のFFRW回避におけるPVAB調整の有用性
岡崎真紀子1, 井上完起2, 矢川真弓子2, 林 常夫1, 川幡俊夫1, 梅村 純1, 友池仁暢2
1公益財団法人日本心臓血管研究振興会附属神原記念病院臨床工学科, 2公益財団法人日本心臓血管研究振興会附属神原記念病院循環器内科

MP3-5 上室性頻拍性不整脈に対する、ATP機能の検討
都筑 裕1, 武藤崇史1, 森本志保1, 梅田修平1, 平原真彦1, 海江田章1, 坂口俊樹1, 川上 徹2
1社会医療法人杏嶺会一宮西病院医療機器管理室, 2社会医療法人杏嶺会一宮西病院不整脈科

MP3-6 発作性心房細動を認める患者に対し抗頻拍ペーシングが有用であった1例
武藤崇史1, 都筑 裕1, 森本志保1, 梅田修平1, 平原真彦1, 海江田章1, 坂口俊樹1, 川上 徹2
1社会医療法人杏嶺会一宮西病院医療機器管理室, 2社会医療法人杏嶺会一宮西病院不整脈科
Chairered Poster (2nd Lane) 16:22-16:57 Chaired Poster Session (Medical Professionals) [MP4]

心電図1（メディカルプロフェッショナル）

座長 渡邉嘉之
日本医科大学付属病院 心臓血管外科／医療法人社団薬会川崎南部病院 心臓血管外科
山本 賢
藤田保健衛生大学 ME管理室

MP4-1 指尖容積脈波を用いた末梢血管自律神経機能評価
濱田里美1、石原有理1、角 勇樹1、井上芳徳2、槇部光章3、平尾見三4、笹野哲郎1
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MP4-2 電気生理学的検査では検出できずトレッドミル検査で検出した高度房室ブロックにステロイド治療が奏功した心サルコイドーシスの一例
山崎正之1、今村公威2、藤原竜童3、柴田浩遺2、吉永仁香1、小川正子1、藤田淳子1、高岡理恵1、衣笠 宏1、福田晃子1、大嶋里美1、中平純子1、友近美穂1、柏山和行1、安田栄秦1、大井茂昭1、西川寿子1、今津直子1、深田恵利奈1、志手淳也1
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MP4-3 取り下げ

MP4-4 ホルター心電図記録中に血管から心停止に至った3例の報告
新谷知世1、渡邉英一2、越川真行2、市川智英2、山本真由美2、奥田健太郎2、祖父江嘉洋2、原田将英2、藤原麻未1、辻川圭亮1、武田 淳1、山本 賢1、北川文彦1、尾崎行男2
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MP4-5 取り下げ