

**RSNA® 2019**  
DECEMBER 1-6

# Cardiac Radiology

**RADIOLOGICAL SOCIETY  
OF NORTH AMERICA**  
105<sup>TH</sup> Scientific Assembly  
and Annual Meeting

*Meeting.RSNA.org*  
#RSNA19

Accreditation and Designation Statements

The Radiological Society of North America (RSNA®) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The RSNA designates this live activity for a maximum of 94.00 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The Commission on Accreditation of Medical Physics Education Program (CAMPEP) has approved the direct transfer of *AMA PRA Category 1 Credit™* to MPCEC on a credit-for-credit basis for medical physicists.

Corporate Symposium

Please refer to each course description in the online program to determine if CME credit is offered for the session. Instructions on claiming credit will be provided during the course. CME credit for the Corporate Symposiums will be provided through a third-party provider and not through RSNA.

Program information is subject to change. For the most up-to-date information, please use your Meeting App or visit [Meeting.RSNA.org](http://Meeting.RSNA.org).

Walk Through the Week

Sunday, Dec. 1, 2019

Case of the Day

Cardiac Sunday Case of the Day  
Session ED002-SU . . . . . Case of Day, Learning Center

10:45 AM-12:15 PM

Scientific Papers Sessions

Science Session with Keynote: Cardiac (Coronary Artery Disease - Practice and Prognosis)  
Session SSA03 . . . . . S105AB  
Cardiac (Myocardial Ischemia and Viability (MRI))  
Session SSA04 . . . . . S102CD

12:30-1:00 PM

Posters and Exhibits: Discussions

Cardiac Sunday Poster Discussions  
Session CAS-SUA. . . . . CA Community, Learning Center

1:00-1:30 PM

Posters and Exhibits: Discussions

Cardiac Sunday Poster Discussions  
Session CAS-SUB. . . . . CA Community, Learning Center

2:00-3:30 PM

Educational Courses

Read with the Experts (Cardiac Radiology) (Interactive Session)  
Course RC103 . . . . . N230B

Monday, Dec. 2, 2019

Case of the Day

Cardiac Monday Case of the Day  
Session ED002-MO. . . . . Case of Day, Learning Center

8:30-10:00 AM

Educational Courses

Cardiac CT Mentored Case Review: Part I (In Conjunction with the North American Society for Cardiovascular Imaging) (Interactive Session)  
Course MSMC21 . . . . . S406A  
Infections and Inflammatory Cardiac Disorders  
Course RC203. . . . . E353A  
Emergency Cardiothoracic CT Angiography  
Course RC208. . . . . E450B

**10:30 AM–12:15 PM****Educational Courses**

Cardiac CT Mentored Case Review: Part II (In Conjunction with the North American Society for Cardiovascular Imaging) (Interactive Session)

Course MSMC22 . . . . . S406A

**10:30 AM–12:00 PM****Scientific Papers Sessions**

Cardiac (CT: Fractional Flow Reserve)

Session SSC01 . . . . . S402AB

Cardiac (Nonischemic Cardiomyopathies)

Session SSC02 . . . . . S401CD

**12:15–12:45 PM****Posters and Exhibits: Discussions**

Cardiac Monday Poster Discussions

Session CAS-MOA . . . . CA Community, Learning Center

**12:45–1:15 PM****Posters and Exhibits: Discussions**

Cardiac Monday Poster Discussions

Session CAS-MOB . . . . CA Community, Learning Center

**1:30–3:00 PM****Educational Courses**

Cardiac CT Mentored Case Review: Part III (In Conjunction with the North American Society for Cardiovascular Imaging) (Interactive Session)

Course MSMC23 . . . . . S406A

**3:00–4:00 PM****Scientific Papers Sessions**

Science Session with Keynote: Cardiac (Congenital and Pediatric Imaging)

Session SSE03 . . . . . E350

Science Session with Keynote: Cardiac (Arrhythmia and Electrophysiology)

Session SSE04 . . . . . E353B

Nuclear Medicine (Cardiovascular PET)

Session SSE17 . . . . . S403A

**3:30–5:30 PM****Educational Courses**

Cardiac CT Mentored Case Review: Part IV (In Conjunction with the North American Society for Cardiovascular Imaging) (Interactive Session)

Course MSMC24 . . . . . S406A

**Tuesday, Dec. 3, 2019****Case of the Day**

Cardiac Tuesday Case of the Day

Session ED002-TU . . . . . Case of Day, Learning Center

**7:15–8:15 AM****Educational Courses**

Houston, We Have a Problem (Case-based Competition)

Session SPDL30 . . . . . E451B

**8:30 AM–12:00 PM****Educational Courses**

Cardiac Series: Emerging Cardiovascular MR and CT Imaging

Course RC303 . . . . . E350

**8:30–10:00 AM****Educational Courses**

Percutaneous Thoracic Interventions

Course RC331 . . . . . S403A

**10:30 AM–12:00 PM****Educational Courses**

Emerging Imaging Trends (Sponsored by the Associated Sciences Consortium) (Interactive Session)

Course MSAS32 . . . . . S105AB

**10:30 AM–12:00 PM****Scientific Papers Sessions**

Cardiac (CT, MRI, and Nuclear Medicine: General Topics)

Session SSG02 . . . . . S104A

**12:15–12:45 PM****Posters and Exhibits: Discussions**

Cardiac Tuesday Poster Discussions

Session CAS-TUA . . . . CA Community, Learning Center

**12:45–1:15 PM****Posters and Exhibits: Discussions**

Cardiac Tuesday Poster Discussions

Session CAS-TUB . . . . CA Community, Learning Center

**3:00–4:00 PM****Scientific Papers Sessions**

Cardiac (Myocarditis and Inflammation)

Session SSJ03 . . . . . N227B

Cardiac (MRI: General Topics)

Session SSJ04 . . . . . N230B

**3:30–5:00 PM****Educational Courses**

Essentials of Trauma Imaging

**Course MSES34** . . . . . **S100AB****4:30–6:00 PM****Educational Courses**

Current Practice and Emerging Techniques in Coronary CT

**Course RC403** . . . . . **E351**

Advances in Cardiac Nuclear Imaging: SPECT/CT and PET/CT

**Course RC411** . . . . . **S504CD****Wednesday, Dec. 4, 2019****Case of the Day**

Cardiac Wednesday Case of the Day

**Session ED002-WE** . . . . . **Case of Day, Learning Center****8:30–10:00 AM****Educational Courses**

Rapid Fire: 80 Cardiac Cases in 80 Minutes

**Course RC503** . . . . . **E353B****10:30 AM–12:00 PM****Scientific Papers Sessions**

Cardiac (Coronary Atherosclerosis)

**Session SSK03** . . . . . **E351**

Science Session with Keynote: Cardiac (Great Vessels)

**Session SSK04** . . . . . **E352****12:15–12:45 PM****Posters and Exhibits: Discussions**

Cardiac Wednesday Poster Discussions

**Session CAS-WEA** . . . . **CA Community, Learning Center****12:45–1:15 PM****Posters and Exhibits: Discussions**

Cardiac Wednesday Poster Discussions

**Session CAS-WEB** . . . . **CA Community, Learning Center****1:30–3:00 PM****Educational Courses**

Essentials of Cardiac Imaging

**Course MSES43** . . . . . **S100AB****3:00–4:00 PM****Scientific Papers Sessions**

Cardiac (Myocardial Disease)

**Session SSM03** . . . . . **S401CD**

Cardiac (Anatomy and Function)

**Session SSM04** . . . . . **S404AB****Thursday, Dec. 5, 2019****Case of the Day**

Cardiac Thursday Case of the Day

**Session ED002-TH** . . . . . **Case of Day, Learning Center****8:30–10:00 AM****Educational Courses**

Nonischemic Cardiomyopathies: Role of Cardiac MRI

**Course RC603** . . . . . **S103AB****10:30 AM–12:00 PM****Scientific Papers Sessions**

Science Session with Keynote: Cardiac (Valvular Imaging and Intervention)

**Session SSQ02** . . . . . **E353C**

Cardiac (Coronary Artery Disease: CT and MRI Techniques)

**Session SSQ03** . . . . . **E450B****12:15–12:45 PM****Posters and Exhibits: Discussions**

Cardiac Thursday Poster Discussions

**Session CAS-THA** . . . . **CA Community, Learning Center****12:45–1:15 PM****Posters and Exhibits: Discussions**

Cardiac Thursday Poster Discussions

**Session CAS-THB** . . . . **CA Community, Learning Center****3:00–4:00 PM****Educational Courses**

Hot Topic Session: 4D Flow Imaging in Congenital and

Acquired Cardiovascular Disease-Clinical Impact

**Session SPSH52** . . . . . **S401CD****4:30–6:00 PM****Educational Courses**

CT of Structural Heart Disease: Guiding Interventional Procedures

**Course RC703** . . . . . **E350**

CTA for TAVR and Other Aortic Valve Replacements

**Course RC712** . . . . . **E352**



## Posters and Exhibits Discussions

*[CME is available when the author is present for discussion during the lunch period]*

### Sunday, Dec. 1, 2019

#### 12:30–1:00 PM

##### Scientific Posters

“One-Stop” Computed Tomography Myocardial Perfusion Imaging: A Novel Protocol for Comprehensive Evaluation in Patients with Coronary Artery Disease  
**CA239-SD-SUA5 . . . . . Station #5**

Comparison of the Prevalence of High-Risk Plaque Between Metabolic Syndrome and Non-Metabolic Syndrome: Evaluation with DSCT Angiography  
**CA202-SD-SUA3 . . . . . Station #3**

Diagnostic Potential and Benefits of Myocardial Infarction and Non-Ischemic Myocardial Disease Using Subtraction Myocardial Image for Late Iodine Enhancement (SMILIE) in Cardiac CT  
**CA200-SD-SUA1 . . . . . Station #1**

Efficacy of Spectral Imaging Using Dual-Layer Spectral Detector Computed Tomography for Acute Coronary Syndrome  
**CA201-SD-SUA2 . . . . . Station #2**

Markers of Myocardial Injury Based on 3.0T MRI in Predicting the Recovery of Segmental Recovery After Acute Myocardial Infarction  
**CA238-SD-SUA4 . . . . . Station #4**

#### 12:30–1:00 PM

##### Education Exhibits

Detecting Post-Fontan Hepatic Complications  
**CA159-ED-SUA6 . . . . . Station #6**

Recent Technologies in Coronary Stent CT Angiography: Impact of the Ultra High Resolution CT on Its Image Quality  
**CA158-ED-SUA7 . . . . . Station #7**

#### 1:00–1:30 PM

##### Scientific Posters

Deep-Learning-Based Technology for Eliminating Gadolinium Contrast Agents in Myocardial Infarction MR Imaging  
**CA203-SD-SUB1 . . . . . Station #1**

Diagnostic Value of Stress Dynamic Myocardial CT Perfusion for Symptomatic Patients with Intermediate to High Risk of Coronary Artery Disease: Absolute Versus Relative Myocardial Blood Flow  
**CA241-SD-SUB5 . . . . . Station #5**

Instantaneous Wave-Free Ratio Derived from Dynamic Coronary CT Angiography with Dose Modulation: Influence of Plaque Characteristics on Coronary Hemodynamics  
**CA205-SD-SUB3 . . . . . Station #3**

Modification of Left Ventricle Myocardial Perfusion Reserve After the Implantation of Coronary Sinus Stent: A Stress-Rest CMR Study  
**CA240-SD-SUB4 . . . . . Station #4**

Reproducibility of Cardiac Magnetic Resonance Imaging Methods in Patients With or Without Pacemakers and/or Implantable Cardioverter-Defibrillators in the CONCERT-HF Trial  
**CA204-SD-SUB2 . . . . . Station #2**

#### 1:00–1:30 PM

##### Education Exhibits

Non-Invasive Modalities to Detect Coronary Complications After Heart Transplant  
**CA162-ED-SUB7 . . . . . Station #7**

Strain Analysis: A Comparison of Tagging, DENSE, SENC and Feature Tracking  
**CA004-EB-SUB . . . . . Hardcopy Backboard**

Utility of Computed Tomography in the Evaluation of Transcatheter Mitral Valve Replacement  
**CA157-ED-SUB6 . . . . . Station #6**

### Monday, Dec. 2, 2019

#### 12:15–12:45 PM

##### Scientific Posters

Association between Left Atrial Function Using Tissue Tracking from Cine MR Imaging and Myocardial Fibrosis in Hypertrophic Cardiomyopathy  
**CA207-SD-MOA2 . . . . . Station #2**

CT-FFR Profiles in Patients without Coronary Artery Disease  
**CA233-SD-MOA4 . . . . . Station #4**

Impact of An Advanced Image-Based Monoenergetic Reconstruction Algorithm on Coronary Artery Stent Visualization Using Dual-Source Dual-Energy CT: Primary Study  
**CA208-SD-MOA3 . . . . . Station #3**



Improving Image Quality of Aortic and Pulmonary Valve for Children with High Heart Rates Using Second-Generation Motion Correction Algorithm

**CA231-SD-MOA6** ..... Station #6

Pre-Ablation Assessment of Cardiac Anatomy and Function: Impact on Recurrence of Atrial Fibrillation

**CA230-SD-MOA5** ..... Station #5

Predictors for Adequate Stress Response to Adenosine Triphosphate in Perfusion Cardiac Magnetic Resonance

**CA206-SD-MOA1** ..... Station #1

Quantitative Assessment of Double Ventricular Strain in Patients with Dilated Cardiomyopathy Using Cardiovascular Magnetic Resonance Feature Tracking Techniques: A Preliminary Clinical Study

**CA232-SD-MOA7** ..... Station #7

## 12:15–12:45 PM

### Education Exhibits

CT Coronary Angiography Fractional Flow Reserve (FFR): A Primer for Radiologists and Cardiologists

**CA160-ED-MOA8** ..... Station #8

## 12:45–1:15 PM

### Scientific Posters

Association Between FFRCT Values and Coronary Artery Plaque Quantification Values in Coronary CT Angiography

**CA237-SD-MOB7** ..... Station #7

Could a Very Short MRI Protocol Replace the CT in Assessment of Cavo-Pulmonary (Glenn) Shunts in the Future? Initial Results

**CA236-SD-MOB6** ..... Station #6

Detection of Left Atrial Appendage Thrombi by Third-Generation Dual-Source Dual-Energy CT: Iodine Concentration versus Conventional Enhancement Measurements

**CA210-SD-MOB2** ..... Station #2

Feasibility of Ultra-Low Contrast Dose and Low Radiation Dose for CT Angiography of Left Atrium and Pulmonary Veins with 80kV and ASIR-V

**CA234-SD-MOB4** ..... Station #4

Prediction Model for Aortic Stenosis Severity Based on Aortic Valve Calcium on Cardiac Computed Tomography: Incorporation into Radiomics and Machine Learning

**CA211-SD-MOB3** ..... Station #3

Role of Cardiac MRI in Identification of Myocardial Fibrosis in Patients of Non-Ischemic Dilated Cardiomyopathy

**CA235-SD-MOB5** ..... Station #5

What is The Linear Mid-Wall LGE of The Ventricular Septum Seen in Cardiac MRI?

**CA209-SD-MOB1** ..... Station #1

## 12:45–1:15 PM

### Education Exhibits

The Puzzle of Describing Congenital Heart Disease:

Recognizing the Individual Pieces and Connecting Them

Together using Anderson's Sequential Segmental Analysis

**CA161-ED-MOB8** ..... Station #8

## Tuesday, Dec. 3, 2019

## 12:15–12:45 PM

### Scientific Posters

An hs-TNT Second Peak Associated with High CRP at Day 2 Appears as Potential Biomarkers of Micro-Vascular Occlusion on Magnetic Resonance Imaging after Reperfusion ST-Segment Elevation Myocardial Infarction

**CA247-SD-TUA6** ..... Station #6

Imaging of Coronary Plaques and Stents with Conventional and Photon-Counting CT

**CA248-SD-TUA4** ..... Station #4

Prognostic Value of Coronary Artery Disease-Reporting and Data System (CAD-RADS) Score for Major Adverse Cardiac Events in Patient with Acute Chest Pain from the Emergency Department

**CA213-SD-TUA2** ..... Station #2

Right Ventricular Deformation Impairment Persists in Different Stages of Experimental Autoimmune Myocarditis in Rats - Assessed by Cardiac Magnetic Resonance Tissue Tracking

**CA246-SD-TUA5** ..... Station #5

T1 and T2 Mapping Cardiovascular Magnetic Resonance to Predict Left Ventricular Remodeling Following an Acute Myocardial Infarction

**CA212-SD-TUA1** ..... Station #1

## 12:15–12:45 PM

### Education Exhibits

Cardiovascular 4D Flow MRI: From Basic Principle to Emerging Clinical Application

**CA163-ED-TUA7** ..... Station #7

Understanding Care and Challenges of Left Ventricular Assist Devices (LVADs)

**CA164-ED-TUA8** ..... Station #8

**12:45–1:15 PM****Scientific Posters**

Assessment of Left Ventricular Deformation using CMR Tissue Tracking in Patients with Connective Tissue Diseases: Comparison between Idiopathic Inflammatory Myopathy and Non-Idiopathic Inflammatory Myopathy

**CA250-SD-TUB5** ..... Station #5

Correlation between Extracellular Volume Expansion and Late Gadolinium Enhancement in Dilated Cardiomyopathy

**CA249-SD-TUB4** ..... Station #4

Decreased Left Atrial Longitudinal Strain is Associated with Cardiac Amyloidosis

**CA217-SD-TUB3** ..... Station #3

Multiparametric Cardiovascular Magnetic Resonance Imaging in Acute Myocarditis: A Comparison of Different Measurement Approaches

**CA215-SD-TUB1** ..... Station #1

Performance of Cardiac CT for the Diagnosis of Arrhythmogenic Cardiomyopathy of The Right Ventricle

**CA251-SD-TUB6** ..... Station #6

The Early Warning Value of Low-Dose CT Coronary Angiography for Assessment of Vulnerable Plaque and Screening Coronary Heart Disease

**CA216-SD-TUB2** ..... Station #2

**12:45–1:15 PM****Education Exhibits**

Clinical Applications of Deep Learning in Cardiovascular Imaging

**CA165-ED-TUB7** ..... Station #7

Multimodality Imaging of Right Atrium: Potential Entities and Radiological Findings

**CA168-ED-TUB8** ..... Station #8

**Wednesday, Dec. 4, 2019****12:15–12:45 PM****Scientific Posters**

Deep Learning-Based Automated CT Coronary Artery Calcium Scoring

**CA254-SD-WEA5** ..... Station #5

Different Patterns of CMR in Fabry's Cardiovascular Disease

**CA220-SD-WEA3** ..... Station #3

ECG-Gated Multislice Computed Tomography in Aortic Perivalvular Abscess: Comparison with Transthoracic Echocardiography, Transesophageal Echocardiography, and Intraoperative Findings

**CA255-SD-WEA4** ..... Station #4

Exploring the Diagnostic Value of LV Strain Parameters in Acute Myocarditis by CMR-FT

**CA218-SD-WEA1** ..... Station #1

Fabry's Disease without Changes in T1 Mapping Can Be Differentiated from Healthy Volunteers by Feature Tracking Strain Imaging

**CA253-SD-WEA7** ..... Station #7

Myocardial Strain Analysis with Feature-Tracking Magnetic Resonance in Patients with Cardiac Amyloidosis

**CA252-SD-WEA6** ..... Station #6

The Diagnostic Value of Adenosine Stress Computed Tomography Myocardial Perfusion in Suspected Coronary Artery Disease

**CA219-SD-WEA2** ..... Station #2

**12:15–12:45 PM****Education Exhibits**

Coronary FFR-CT: Future or Fad?

**CA167-ED-WEA8** ..... Station #8

**12:45–1:15 PM****Scientific Posters**

Analysis of Signal Intensity and Signal Intensity Ratio (SIR) in STIR Images in Patients with Suspected Myocarditis

**CA223-SD-WEB3** ..... Station #3

Characterization of Coronary Arterial Plaque Composition with Dual Energy Computed Tomography: A Simulation Study

**CA259-SD-WEB7** ..... Station #7

Correlation of Myocardial Tissue Characteristic, Strain, and Mass in Anderson-Fabry Patients

**CA257-SD-WEB5** ..... Station #5

Extracellular Volume Analysis with Cardiac Magnetic Resonance in Patients with Scleroderma

**CA256-SD-WEB4** ..... Station #4

Machine Learning to Evaluate Vulnerable Plaque on Coronary Computed Tomography with Spectral Imaging

**CA222-SD-WEB2** ..... Station #2

Quantitative Assessment of Left Ventricular Myocardial Strain in Patients with Myocarditis by Magnetic Resonance Myocardial Tissue Tracking

**CA221-SD-WEB1** ..... Station #1

Simulated Enhancement Ratio of Myocardium to Aorta for the Identification of Obstructive Coronary Artery Disease using Dynamic Myocardial Computed Tomography Perfusion

**CA258-SD-WEB6** ..... Station #6

**12:45–1:15 PM****Education Exhibits**

A Software Pipeline Taking 4D Cardiac Data to Dynamic AR/VR Models

**CA169-ED-WEB8** . . . . . **Station #8**

**Thursday, Dec. 5, 2019****12:15–12:45 PM****Scientific Posters**

Combined Coronary CT-Angiography and TAVI-Planning: A Contrast-Neutral and Efficient Routine Approach to Exclude Significant Coronary Artery Disease

**CA242-SD-THA4** . . . . . **Station #4**

Does Knowledge-Based Iterative Model Reconstruction Improve Diagnostic Performance in Dynamic Myocardial CT Perfusion Imaging with Low-Tube Voltage Scan?

**CA225-SD-THA2** . . . . . **Station #2**

MR Tissue Tracking Technique for Evaluation of Isolated Left Ventricular Noncompaction Regional and Layer-Specific Strain

**CA226-SD-THA3** . . . . . **Station #3**

Myocardial Deformation Assessment in Patients with Isolated Left Ventricular Non-Compaction Using Deformable Registration of Cine MRI: Comparison with Feature Tracking

**CA224-SD-THA1** . . . . . **Station #1**

Use of Salient Features to Optimize a Machine Learning Classifier of Coronary Artery Disease Severity

**CA243-SD-THA5** . . . . . **Station #5**

**12:15–12:45 PM****Education Exhibits**

Late Iodine Enhancement and Myocardial Extracellular Volume Quantification by Using Cardiac CT: Emerging Trends in Clinical Practice

**CA170-ED-THA6** . . . . . **Station #6**

**12:45–1:15 PM****Scientific Posters**

Clinical Significance of Corrected Relative Flow Reserve Derived from N-13 Ammonia Positron Emission Tomography Combined with Coronary Computed Tomography Angiography

**CA228-SD-THB2** . . . . . **Station #2**

Comprehensive Morpho-Functional and Structural Characterization of the Left-Ventricle in a Mouse Model of Acute Ischemia/Reperfusion Injury with a Single CMR 3D Flash Intra-Gate Cine Sequence

**CA229-SD-THB3** . . . . . **Station #3**

Quantitative Assessment of Myocardial Strain of LVNC Based on CMR Tissue Tracking

**CA227-SD-THB1** . . . . . **Station #1**

The Application Value of "One-Stop" CT Myocardial Perfusion Imaging in the Quantitative Evaluation of Patients with Severe Coronary Artery Stenosis: Compared Against Cardiac Magnetic Resonance Imaging

**CA245-SD-THB5** . . . . . **Station #5**

Ultra-Low Radiation Dose with Third-Generation DSCT for Trans-Catheter Aortic Valve Implantation Planning

**CA244-SD-THB4** . . . . . **Station #4**

**Education Exhibits**

<b>SPACE No.</b>	<b>EXHIBIT TITLE</b>
<b>CA001-EB-X</b>	Turner Syndrome in Adults: Magnetic Resonance Roadmap to Cardiovascular Anomalies
<b>CA002-EB-X</b>	Optimized Small-Animal Cardiac Functional Magnetic Resonance Imaging
<b>CA003-EB-X</b>	Heart Mechanics by MRI: Technical Developments and Clinical Applications
<b>CA005-EB-X</b>	Left Atrial Appendage Occlusion: Procedure Planning and Device Positioning with Advanced Imaging
<b>CA100-ED-X</b>	Pre-and Post-Procedural Imaging of Left Atrial Appendage Closure Devices with Computed Tomography
<b>CA101-ED-X</b>	Optimizing CT Protocols for Adult Congenital Heart Disease: A Primer for Radiologists
<b>CA102-ED-X</b>	Evaluation of Right Ventricular Dilation Using a Multi-Modality Imaging Approach
<b>CA103-ED-X</b>	Transposition of Great Arteries from A to Z: Hemodynamics, Imaging, and Management
<b>CA104-ED-X</b>	Cardiac Pseudotumors and Benign Lesions of the Heart: Not Every Enhancing Mass is a Tumor!
<b>CA105-ED-X</b>	Evaluation of Coronary and Aorta CT Angiography in 320-Row CT: Improvement of Scanning and Injection Method





<b>CA106-ED-X</b>	Review of Cardiac Masses: The Role of Computed Tomography	<b>CA122-ED-X</b>	Major Aorto Pulmonary Collaterals (MAPCAs): What the Radiologist Needs to Know
<b>CA107-ED-X</b>	The Advantage of Clinical Applications of Compressed Sensing in Cardiovascular Magnetic Resonance	<b>CA123-ED-X</b>	CT and MR Imaging of Cardiac Masses and Pseudomasses: A Case-based Review
<b>CA108-ED-X</b>	Acute Coronary Syndrome on Non-Cardiac Computed Tomography: What Not to Miss	<b>CA124-ED-X</b>	<sup>1</sup> H-Magnetic Resonance Spectroscopy for Metabolic Imaging of Myocardial Triglyceride Content: How "To Do It"
<b>CA109-ED-X</b>	MDCT of Watchman Implantation: What the Cardiologists Want to Know	<b>CA125-ED-X</b>	A Beginner's Guide to Understanding Echocardiography with CT/MRI Correlation, Case-based Examples, and Emphasis on Blind Spots
<b>CA110-ED-X</b>	The No Longer Ignored: Tricuspid Valve Imaging and Right Ventricular Function Analysis	<b>CA126-ED-X</b>	Computational Fluid Dynamics in Radiology Practice: An Illustrated 'How-To' with Examples from CT Fractional Flow Reserve, Endothelial Shear Stress, Abdominal Aortic Aneurysms, and Congenital Heart Disease
<b>CA111-ED-X</b>	Bringing MINOCA's Puzzle Pieces Together: The Role of Cardiac MRI (CMRI)	<b>CA127-ED-X</b>	Intravenous Nitroglycerin Technique with Cardiac Computed Tomography for Visualizing Occluded Coronary Artery Filled by Collaterals
<b>CA112-ED-X</b>	Novel Assessment of Physiological Tricuspid Valve Morphology and Specific Right Ventricular Shape via 3D Printed Cardiac Models	<b>CA128-ED-X</b>	Multidetector Cardiac Computed Tomography Angiography for Characterization of Structural Abnormalities of Left Ventricular Outflow Tract
<b>CA113-ED-X</b>	Physiological Computed Tomography Angiography Using the Timing Bolus Method	<b>CA129-ED-X</b>	Know 'THE WAVES' Before You Surf Them: Basic ECG and Case-based Quiz for Cardiac Radiologists
<b>CA114-ED-X</b>	Imaging of Pediatric Cardiac Tumors	<b>CA130-ED-X</b>	When to Wave the Red Flag: Imaging Spectrum of Heart Conditions that Can Cause Sudden Cardiac Death (SCD)
<b>CA115-ED-X</b>	Imaging Overview of Chagas Cardiomyopathy	<b>CA131-ED-X</b>	Cardiac MRI on Assessing Right Ventricular Systolic Function: How Many Methods Do We Have and How to Use It?
<b>CA116-ED-X</b>	Impact of Identifying STENT Type in Coronary CT: Analysis Methods and Clinical Utility Using Dual-Energy Technology	<b>CA132-ED-X</b>	Incidental Focal FDG Uptake in the Left Ventricle on Oncologic FDG-PET/CT: Be Careful with the FDG Uptake in the Left Ventricle
<b>CA117-ED-X</b>	Imaging Challenges in Cardio-Oncology: Pushing the Limits Beyond Rare Tumors	<b>CA133-ED-X</b>	An Emerging Technique to Achieve Diagnostic Exams in Cardiac MRI with Implanted Cardiac Devices
<b>CA118-ED-X</b>	Complications of Congenital Heart Disease in the Adult: What the Cardiologist Wants to Know	<b>CA134-ED-X</b>	Off the Beaten Path: Imaging of Unusual Cardiac Aneurysms
<b>CA119-ED-X</b>	Pulmonary Arteries in Congenital Heart Disease: Comprehensive CT and MRI-Anatomic Classification - Image Findings and Structured Reporting		
<b>CA120-ED-X</b>	Tic Tac TOF: Tips and Tricks in Preoperative Multidetector CT (MDCT) Evaluation of Tetralogy of Fallot		
<b>CA121-ED-X</b>	Acute Cardiac Support Devices: An Imaging Review of Non-Durable Mechanical Circulatory Support Devices		



<b>CA135-ED-X</b>	Survival Guide for Multimodality Imaging of the Mitral Valve: Morphology, Function, and Disease
<b>CA136-ED-X</b>	Cardiac MR imaging of Muscular Dystrophies
<b>CA137-ED-X</b>	Multidetector Cardiac Computed Tomography Angiography for Demonstration and Characterization of Anomalies of Coronary Sinus
<b>CA138-ED-X</b>	The Not So Fantastic Four: Pre- and Post-Operative Evaluation of Tetralogy of Fallot (TOF) on 4D MRI
<b>CA139-ED-X</b>	Advances in Non-Invasive Imaging of Patients with Single Ventricles following Fontan Palliation
<b>CA140-ED-X</b>	Non-Malignant Cardiac Findings That Can Mimic Malignancy on Oncologic PET-CT
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