

NEURORADIOLOGY/ HEAD AND NECK RADIOLOGY

**104TH Scientific Assembly
and Annual Meeting**

Radiological Society of North America
McCormick Place, Chicago

November 25–30

Meeting.RSNA.org #RSNA18

RSNA[®] 2018
TOMORROW'S
RADIOLOGY TODAY 

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 **99.25 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.

Walk Through The Week

CME Learning Checkpoint

CME Learning Checkpoint Exhibit ED021 (Extreme Lateral Interbody Fusion (XLIF): Review of Surgical Technique and Spectrum of Post-treatment Imaging Findings that Radiologists Need to Know)

Session ED021 . . . CME Learning Checkpoint Community

CME Learning Checkpoint Exhibit ED022 (When Sleeping Becomes a Nightmare: Computer Tomography Evaluation of Sleep Apnea Syndrome with Muller Maneuver)

Session ED022 . . . CME Learning Checkpoint Community

CME Learning Checkpoint Exhibit ED023 (Update on Malformations of Cortical Development)

Session ED023 . . . CME Learning Checkpoint Community

SUNDAY, NOV 25, 2018

Case of the Day

Neuroradiology Sunday Case of the Day

Session ED009-SU Case of Day, Learning Center

10:45 AM–12:15 PM

Educational Courses

Oncodiagnosis Panel: Oropharyngeal Cancer

Session SP011 E451B

Pediatric Series: Neuroradiology

Course VSPD01 S406A

10:45 AM–12:15 PM

Scientific Papers Sessions

Molecular Imaging (Brain)

Session SSA13 S504CD

Neuroradiology/Head and Neck (Head and Neck Tumors: State-of-the-Art Imaging)

Session SSA17 E350

Neuroradiology (White Matter Diseases: Beyond Bright T2)

Session SSA18 E352

Neuroradiology (Cognitive and Psychiatric Disorders)

Session SSA19 E351

11:30–11:50 AM

Showcase Presentations

Machine Learning Theater: icobrain - Adding AI to the brAin: Presented by icometrix

Session ML12 . . . Machine Learning Showcase North Hall

12:30–1:00 PM**Posters and Exhibits: Discussions**

Neuroradiology Sunday Poster Discussions

Session NRS-SUA. NR Community, Learning Center**1:00–1:30 PM****Posters and Exhibits: Discussions**

Neuroradiology Sunday Poster Discussions

Session NRS-SUB. NR Community, Learning Center**2:00–3:30 PM****Educational Courses**

Update on Imaging in Dementia

Course RC105 E451A

The Cranial Nerves

Course RC106 S402ABThe Best of RADIOLOGY in 2018: The Editors of RADIOLOGY
Keep You Up to Date**Course RC124 E353A**

CTA from Head to Toe

Course RC131 S503ABNerve Ultrasound Based on a Regional Approach: Hip to Knee
(Hands-on)**Course RC152 E264****4:00–5:30 PM****Educational Courses**3D/VR/AR Imaging: Staying on the Cutting Edge of Brain
Anatomy/Pathology (Hands-on)**Course RCA13 S401AB****4:00–5:45 PM****Plenary Sessions**

Sunday Afternoon Plenary Session

Session PS12 Arie Crown Theater**MONDAY, NOV 26, 2018****Case of the Day**

Neuroradiology Monday Case of the Day

Session ED009-MO. Case of Day, Learning Center**7:15–8:15 AM****Educational Courses**You Take the Red Pill-You Stay in Wonderland and I Show You
How Deep the Rabbit Hole Goes (Case-based Competition)**Session SPDL20 E451B**

8:30–10:00 AM

Educational Courses

Case-based Review of Magnetic Resonance (Interactive Session)

Course MSCM21 S100AB

BOOST: Head and Neck-Nasopharynx & Perineural Spread (Interactive Session)

Course MSR021 E450A

Emergency Neuroradiology: Imaging of Infection (Interactive Session)

Course RC208. E451A

What Radiologists Need to Know about the Evolving Treatment of Brain Metastases?

Course RC220. S404CD

8:30 AM–12:00 PM

Educational Courses

Neuroradiology Series: Brain Tumors

Course RC205. S406B

Head and Neck Series: There's a New (AJCC 8th Edition) Manual-Updates in Head and Neck Cancer Science and TNM Staging

Course RC206. E450B

10:30 AM–12:00 PM

Scientific Papers Sessions

Neuroradiology/Head and Neck (Trauma Imaging: Picking Up the Pieces)

Session SSC11 S402AB

Science Session with Keynote: Radiation Oncology (CNS Malignancies)

Session SSC14 E353A

10:30 AM–12:00 PM

Educational Courses

BOOST: CNS-Case-based Multidisciplinary Review (Interactive Session)

Course MSR022 S103AB

Australia and New Zealand Present: Clinical Radiology and Radiation Oncology

Session SPCP21 E351

12:15–12:45 PM

Posters and Exhibits: Discussions

Neuroradiology Monday Poster Discussions

Session NRS-MOA NR Community, Learning Center

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

Neuroradiology Monday Poster Discussions

Session NRS-MOB NR Community, Learning Center**1:30–2:30 PM****Scientific Papers Sessions**

BOOST: Head and Neck-Science Session

Session MSR023. E450A**1:30–3:00 PM****Educational Courses**

Molecular Imaging Symposium: Neurologic MI Applications

Course MSMI23. S405AB**3:00–4:15 PM****Educational Courses**BOOST: Head and Neck-Case-based Multidisciplinary Review
(Interactive Session)**Course MSR024 E450A****3:00–4:00 PM****Scientific Papers Sessions**

Nuclear Medicine (Central Nervous System Nuclear Imaging)

Session SSE17 S505ABNeuroradiology/Head and Neck (Thyroid and Parathyroid
Imaging)**Session SSE18 E351**

Neuroradiology (Epilepsy Imaging)

Session SSE19 E352

Neuroradiology (Young Brain, Old Brain)

Session SSE20 E350**4:30–5:30 PM****Educational Courses**

BOOST: Head and Neck-eContouring

Course MSR029 S104B**4:30–6:00 PM****Educational Courses**

Special Interest Session: Imaging Cognition 2018: Addiction

Session SPSI22 E353CSpecial Interest Session: High-value MRI: Updates from the
February 2018 ISMRM-RSNA Co-provided Workshop**Session SPSI23 E450B**

TUESDAY, NOV 27, 2018

Case of the Day

Neuroradiology Tuesday Case of the Day

Session ED009-TU Case of Day, Learning Center

8:30–10:00 AM

Educational Courses

Case-based Review of Nuclear Medicine: PET/CT Workshop-
Head and Neck PET/CT (In Conjunction with SNMMI)
(Interactive Session)

Course MSCC31. E450B

Best Head & Neck Cases of 2018: The Experts Share Their
Most Interesting and Educational Neck, Sinonasal, and
Temporal Bone Cases

Course RC306. E451B

Emerging Technology: Dual Energy and Spectral CT Update
2018

Course RC317 S505AB

8:30 AM–12:00 PM

Educational Courses

Neuroradiology Series: Artificial Intelligence in Neuroradiology

Course RC305. S406B

10:30 AM–12:00 PM

Scientific Papers Sessions

Emergency Radiology (Brain, Head, Neck and Spine)

Session SSG04. S403A

Neuroradiology (Brain Tumors: Looking Beyond the Obvious)

Session SSG10 E353A

Neuroradiology (Molecular Neuroimaging: From Diffusion to
Beyond)

Session SSG11 E351

Radiation Oncology (CNS Malignancies)

Session SSG15 S403B

10:30 AM–12:00 PM

Educational Courses

3D/VR/AR Imaging: Staying on the Cutting Edge of Brain
Anatomy/Pathology (Hands-on)

Course RCA32. S401AB

12:15–12:45 PM

Posters and Exhibits: Discussions

Neuroradiology Tuesday Poster Discussions

Session NRS-TUA NR Community, Learning Center

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

Neuroradiology Tuesday Poster Discussions

Session NRS-TUB NR Community, Learning Center**1:30–3:00 PM****Educational Courses**

Essentials of Neuro Imaging

Course MSES33 S100AB**3:00–4:00 PM****Scientific Papers Sessions**

Neuroradiology (Artificial Intelligence in Neuroimaging)

Session SSJ18 E451B

Neuroradiology (Movement Disorders: Moving Fast and Moving Slow)

Session SSJ19 E351

Neuroradiology (Spine Imaging: Backbone of Neuroradiology)

Session SSJ20 E352**4:30–6:00 PM****Educational Courses**

Neuroradiology: Small Tricks to Avoid Big Misses (Interactive Session)

Course RC405 E451A

Do You Know Your Head & Neck Anatomy? (Interactive Session)

Course RC406 S402AB

Neck Sonography: TI-RADS, Parathyroids, and Other Masses

Course RC410 N227B

PET/CT and SPECT/CT in Movement Disorders, Epilepsy, and Dementia

Course RC411 S504CD

The Role of Molecular and Functional Imaging in Radiation Oncology

Course RC420 S403B

The New Standard of Care of Large Vessel Stroke is Endovascular: Is Your Radiology Practice Ready?

Course RC431 S103CD

US for Thyroid Cancer: Diagnosis, Surveillance, and Treatment

Course RC450 E261**WEDNESDAY, NOV 28, 2018****Case of the Day**

Neuroradiology Wednesday Case of the Day

Session ED009-WE Case of Day, Learning Center

8:30–10:00 AM

Educational Courses

Case-based Review of Pediatric Radiology (Interactive Session)

Course MSCP41 **E450B**

Essentials of Temporal Bone Imaging

Course RC506 **E451A**

Head and Neck PET/CT: Clinical Approach

Course RC511 **S504CD**

Fundamentals of Imaging for the Radiation Oncologist

Course RC520 **S104A**

Vertebral Augmentation (Hands-on)

Course RC550 **E260**

8:30 AM–12:00 PM

Educational Courses

Neuroradiology Series: Stroke

Course RC505 **E450A**

10:30 AM–12:00 PM

Educational Courses

Case-based Review of Pediatric Radiology (Interactive Session)

Course MSCP42 **E450B**

10:30 AM–12:00 PM

Scientific Papers Sessions

Neuroradiology (Stroke Imaging and Intervention)

Session SSK15 **E350**

Neuroradiology (Functional Neuroimaging)

Session SSK16 **E351**

12:15–12:45 PM

Posters and Exhibits: Discussions

Neuroradiology Wednesday Poster Discussions

Session NRS-WEA **NR Community, Learning Center**

12:45–1:15 PM

Posters and Exhibits: Discussions

Neuroradiology Wednesday Poster Discussions

Session NRS-WEB **NR Community, Learning Center**

1:30–2:30 PM

Educational Courses

BOOST: Pediatric CNS Tumors and Diagnostic Dilemmas
after Radiation Therapy (Interactive Session)

Course MSRO43 **S103CD**

3:00–4:30 PM**Educational Courses**

AOSR-RSNA Joint Symposium

Session SPOR41 S504AB**3:00–4:00 PM****Scientific Papers Sessions**

Nuclear Medicine (Thyroid/Parathyroid Imaging and Therapy)

Session SSM16 S504CD

Neuroradiology/Head and Neck (Dual-Energy CT in Head and Neck Imaging)

Session SSM17 N228

Neuroradiology (Advances in Neuro MRI)

Session SSM18 N226

Neuroradiology (Contrast Issues in Neuroimaging)

Session SSM19 N227B

Vascular Interventional (Neurovascular Interventions)

Session SSM23. E263**4:30–5:30 PM****Educational Courses**

BOOST: eContouring (Spinal SBRT)

Course MSRO49 S104B**4:30–6:00 PM****Educational Courses**

Neuro and MSK (Case-based Competition)

Session SPDL41 E451B

Controversy Session: Gadolinium for MR Examination: To Give or Not to Give

Session SPSC44. N228**THURSDAY, NOV 29, 2018****Case of the Day**

Neuroradiology Thursday Case of the Day

Session ED009-TH Case of Day, Learning Center**7:15–8:15 AM****Educational Courses**

Neuro Nightmares: Headscratchers from Overnight (Case-based Competition)

Session SPDL50 E451B

Controversy Session: In Stenotic Vascular Disease, Diameter Stenosis is All that Matters

Session SPSC50. E350

Hot Topic Session: Beyond FDG: Advancing PET Imaging of the Human Disease

Session SPSH50. E353A

8:30–10:00 AM

Educational Courses

Case-based Review of Neuroradiology (Interactive Session)

Course MSCN51 S406A

Traumatic Brain Injury

Course RC605. E352

Imaging of the Head & Neck Glands: Thyroid, Parathyroid, and Salivary Glands (Interactive Session)

Course RC606. E450B

Interactive Game: When Do Imaging Findings Make a Difference? (Interactive Session)

Course RC618 E353B

Common Spinal Injection Procedures for Diagnosis and Treatment of Back Pain (Hands-on)

Course RC631 E263

10:30 AM–12:00 PM

Educational Courses

Case-based Review of Neuroradiology (Interactive Session)

Course MSCN52 S406A

10:30 AM–12:00 PM

Scientific Papers Sessions

Neuroradiology (Dots and Dashes: Image Analysis in Neuroradiology)

Session SSQ15 S503AB

Neuroradiology (Cervicocranial Vascular Imaging)

Session SSQ16 S504AB

Pediatrics (Neuroradiology)

Session SSQ19 S402AB

12:15–12:45 PM

Posters and Exhibits: Discussions

Neuroradiology Thursday Poster Discussions

Session NRS-THA. NR Community, Learning Center

12:45–1:15 PM

Posters and Exhibits: Discussions

Neuroradiology Thursday Poster Discussions

Session NRS-THB. NR Community, Learning Center

3:00–4:00 PM

Educational Courses

Hot Topic Session: Imaging of Inflammation

Session SPSH53. S404AB

4:30–6:00 PM**Educational Courses**

Spine Imaging: Diagnosis & Intervention

Course RC705 **S504AB**12 AM Head & Neck Radiology: Emergency Presentations of
Head and Neck Pathology**Course RC706** **E350**

Pediatric Neuroimaging Emergencies

Course RC713 **S404AB**

Emerging Technology: Imaging of Dementias

Course RC717 **S505AB**

Image-guided Biopsy of the Spine (Hands-on)

Course RC731 **E263****FRIDAY, NOV 30, 2018****8:30–10:00 AM****Educational Courses**Getting Through the Tough Spots in Neuro: Head & Neck
(Interactive Session)**Course RC805** **E450B****10:30 AM–12:00 PM****Scientific Papers Sessions**

Musculoskeletal (Spine)

Session SST05 **E351**Neuroradiology/Head and Neck (Head and Neck Imaging:
Back to the Future)**Session SST07** **E353A**

Pediatrics (Neuroradiology)

Session SST08 **E263****Posters and Exhibits
Discussions***(CME is available when the author is present for discussion
during the lunch period)***SUNDAY, NOV 25, 2018****12:30–1:00 PM****Scientific Posters**Alzheimer's Disease Screening Using Structural MRI
Biomarker Quantification**NR367-SD-SUA6** **Station #6**

Automated Brain Volumetry of Neuromyelitis Optica Spectrum Disorders: Inter-scanner Variability in White Matter Hyperintensities Segmentations and Volumetric Differences Compared with Multiple Sclerosis

NR366-SD-SUA5 Station #5

Deteriorated Functional and Structural Brain Networks in Diabetic Kidney Disease: A Graph Theory-Based Magnetic Resonance Imaging Study

NR364-SD-SUA3 Station #3

Evaluation of Intravoxel Incoherent Motion in Pituitary Adenoma Using Turbo Spin-Echo Diffusion-Weighted Imaging: Comparison with Pathological Microvascular Arterial Perfusion Assessment of Pituitary Adenomas: A Feasibility Study Using Tu

NR363-SD-SUA2 Station #2

Small High-Signal Lesion Posterior to the Intracranial Vertebral Artery Incidentally Identified by 3D FLAIR: Analysis of the Relationship to the Spinal Accessory Nerve by 3D Balanced Fast Field Echo MR Imaging

NR362-SD-SUA1 Station #1

The Association among Quantitative Contrast Enhanced Ultrasonography Features, TI-RADS Score and BRAF V600E Mutation in Papillary Thyroid Cancer

NR365-SD-SUA4 Station #4

12:30–1:00 PM

Education Exhibits

A Case-based Approach to Understanding Cerebral Proliferative Angiopathy, A Distinct Entity from Classical Brain AVM

NR329-ED-SUA9 Station #9

Eyes Are the Windows to the... CNS When Anterior Visual Pathway Involvement Reflect the Diagnosis of CNS Disorders: Reviewing Patterns and Differential Diagnosis

NR330-ED-SUA10 Station #10

Pharyngoesophagram and Videofluoroscopic Evaluation of Oropharyngeal Swallow: The First Step in the Study of Dysphagia

NR327-ED-SUA7 Station #7

Radiological Correlates of Classic Neurological Presentations: The Anatomy Behind the Syndrome

NR328-ED-SUA8 Station #8

1:00–1:30 PM

Scientific Posters

Automated Coregistration Improves Diagnostic Accuracy Compared to Conventional Reading in the MRI Follow-Up Assessment of Brain Lesions in Patients with Multiple Sclerosis

NR373-SD-SUB6 Station #6

Context-Guided Deep Learning Framework for Skull Stripping
NR368-SD-SUB1 **Station #1**

Disrupted Hippocampus-Prefrontal Circuitry in Parkinson's
 Disease Patients with Mild Cognitive Impairment
NR372-SD-SUB5 **Station #5**

Prediction of Parkinson's Disease by Using Deep Learning
 3D-Convolutional Neural Networks
NR369-SD-SUB2 **Station #2**

Prospective Multiparametric US Evaluation of Parotid Gland
 Lesions
NR371-SD-SUB4 **Station #4**

Usefulness of Dual-Layer Spectral CT in Follow-Up
 Examinations: Diagnosing Recurrent Lesions of Head and
 Neck Squamous Cell Carcinomas
NR370-SD-SUB3 **Station #3**

1:00–1:30 PM

Education Exhibits

Cranial Vault Lesions in Systemic Diseases: Should I Stay or
 Should I Go (Further)?
NR334-ED-SUB10 **Station #10**

Does this Brain Infection Get Better or Worse? Central
 Nervous System Immune Reconstitution Inflammatory
 Syndrome (CNS-IRIS) in Setting of HIV infection
NR331-ED-SUB7 **Station #7**

DWI Beyond Stroke – Lesion Pattern Approach
NR333-ED-SUB9 **Station #9**

Stain Your Brain: Neuropathology of Pediatric Brain Tumors
NR332-ED-SUB8 **Station #8**

MONDAY, NOV 26, 2018

12:15–12:45 PM

Scientific Posters

Altered Structural Covariance in Mesial Temporal Lobe
 Epilepsy Network
NR379-SD-MOA5 **Station #5**

Brain Derived Neurotrophic Factor (Val66Met) Predicts
 Structural White Matter and Neurocognitive Alterations in Mild
 Traumatic Brain Injury: A Combined Genotype-Tensor Based
 Analysis
NR381-SD-MOA7 **Station #7**

Clinical Value of Vascular Permeability Estimates Using
 Dynamic Susceptibility Contrast MRI: Improved Diagnostic
 Performance in Distinguishing Hypervascular Primary CNS
 Lymphoma from Glioblastoma
NR374-SD-MOA1 **Station #1**

Malignant X Benign: Use of 2D-Shear Wave Sonoelastography for the Risk Stratification of Thyroid Follicular Nodules

NR378-SD-MOA4 Station #4

Noninvasive Prediction of IDH1 and ATRX Mutation in Low-Grade Gliomas Using Multi-Parametric MR Radiomic Features

NR380-SD-MOA6 Station #6

Resident Call Preparation Website: Preliminary Results

NR375-SD-MOA2 Station #2

Wave-CAIPI Encoding 3D T1-Weighted Magnetization-Prepared Rapid Gradient Echo (MP-RAGE) Brain Imaging: A New Technique for Scan Time Reduction

NR376-SD-MOA3 Station #3

12:15–12:45 PM

Education Exhibits

CT Angiography and CT Perfusion of Brain Tumors with a Reduced Dose of Radiation and Contrast Medium

NR336-ED-MOA9 Station #9

CT Myelos: Dinos or Rhinos? Indications and Pathologies in this Modern MR Era

NR335-ED-MOA8 Station #8

Do Not Get Lost in the Triangle of Guillain-Mollaret: A Pictorial Guide Through the Hypertrophic Olivary Degeneration Flow

NR337-ED-MOA10 Station #10

Neuroimaging in Autoimmune Limbic Encephalitis: MRI versus PET/CT and Mimickers of Disease

NR016-EB-MOA Hardcopy Backboard

12:45–1:15 PM

Scientific Posters

Age Related Changes in Topological Properties of Brain Functional Network and Structural Connectivity

NR385-SD-MOB4 Station #4

Comparison of Morphology and Enhancement Characteristics of Ectopic and Eutopic Parathyroid Adenomas.

NR386-D-MOB5 Station #5

Computed Tomographic Angiography and Perfusion Select Patients with Large Vessel Occlusion for Endovascular Treatment

NR384-SD-MOB3 Station #3

Source Space MEG Delta Waves Increase Following Concussion

NR388-SD-MOB7 Station #7

Susceptibility-Weighted Angiography (SWAN) for the Detection of Vessel Wall Calcification and Intramural Hemorrhage/Hematoma in Intracranial Vertebral Arteries

NR383-SD-MOB2 Station #2

T1rho of Malignant Gliomas Can Be a Biomarker of IDH1 and ATRX Immunohistochemical Stainability

NR387-SD-MOB6 Station #6

The Value of Histogram-Based ADC Map in Distinguishing Pleomorphic Adenomas from Malignant Parotid Gland Tumors

NR389-SD-MOB8 Station #8

Treatment-Naïve First Episode Depression Diagnosis Based on Brain Functional Network

NR382-SD-MOB1 Station #1

12:45–1:15 PM

Education Exhibits

3D Ultrasonography of the Larynx: Anatomic Correlation with CT and Direct Endoscopic Visualization

NR338-ED-MOB9 Station #9

A “Pseudo” Review of Neuroradiology

NR339-ED-MOB10 Station #10

CT Imaging of the Lumbar Spine: An Interactive Program on the Differential Diagnosis Beyond Trauma

NR005-EC-MOB Custom Application Computer Demonstration

Mind the Black Spots: A Pictorial Review of Cerebral Amyloid Angiopathy-Related Inflammation

NR340-ED-MOB11. Station #11

TUESDAY, NOV 27, 2018

12:15–12:45 PM

Scientific Posters

CTA Findings Predictive of Postoperative Vasospasm in Patients with SAH secondary to Ruptured Intracranial Aneurysm

NR392-SD-TUA2. Station #2

Deep Learning for Automatic Detection and Segmentation of Acute Epidural and Subdural Hematomas in Head CT

NR390-SD-TUA1 Station #1

Event-Based Model of Diffusion MRI Shows that sCJD Strains Have Similar Epicenter but Different Lesion Propagation in the Brain

NR396-SD-TUA6. Station #6

Fast, Robust and Accurate Segmentation of the Complete Cerebral Vasculature in 4D-CTA Using Deep Learning

NR397-SD-TUA7 Station #7

Is MRI-based Deep Brain Stimulation (DBS) Programming the New Clinician?

NR393-SD-TUA3. Station #3

Machine Learning Based Radiomics for Glial Tumor Classification

NR398-SD-TUA8. Station #8

Prediction of IDH-1 Mutation and 1P/19Q Codeletion Status in Diffuse Gliomas Using Magnetic Resonance Textural Analysis

NR395-SD-TUA5. Station #5

The Predictive Value of Lumbar Spine MRI Findings Using the Provocative Discogram

NR394-SD-TUA4. Station #4

12:15–12:45 PM

Education Exhibits

Central Nervous System Parasitic Infections: What Radiologists Should Know

NR343-ED-TUA12. Station #12

CNS Vasculopathies: Diagnostic Clues on MR Imaging

NR347-ED-TUA10 Station #10

Dental Emergencies: A Practical Guide to Identify Them

NR342-ED-TUA11 Station #11

Extra-Nodal Extension in Head and Neck Cancer: How Radiologists Can Help Staging and Treatment Planning

NR344-ED-TUA9. Station #9

Imaging Findings in Medication-Induced Changes of the Central Nervous System: What Radiologists Should Know

NR020-EB-TUA. Hardcopy Backboard

12:45–1:15 PM

Scientific Posters

Amide Proton Transfer Imaging in the Head and Neck: A Feasibility Study for Differentiating Malignant from Benign Lesions

NR401-SD-TUB3. Station #3

Cervical Spondylotic Myelopathy: Changes of Fractional Anisotropy and Magnetic Resonance Spectroscopy Dependent on Symptoms and Symptom Duration

NR402-SD-TUB4. Station #4

Correlation of 99mTc-TRODAT-1 SPECT Imaging Findings and Clinical Staging of Parkinson's Disease

NR404-SD-TUB6 Station #6

Detection of Local Recurrence in Patients with Head and Neck Squamous Cell Carcinoma Using Voxel-Based Color Maps of Initial and Final Area under the Curve Values Derived From DCE-MRI

NR400-SD-TUB2 Station #2

Diffusion Tensor and DSC Perfusion Imaging of CNS Lymphoma: A Comparison with Glioblastoma Multiforme

NR407-SD-TUB9. Station #9

Grading Meningiomas Using Mono-Exponential, Bi-Exponential and Stretched Exponential Model-Based Diffusion-Weighted MR Imaging

NR403-SD-TUB5. Station #5

Identification of Autism Spectrum Disorder Using Deep Learning

NR405-SD-TUB7. Station #7

Prediction of Clinical Outcome of Acoustic Neuromas Treated with Cyberknife Stereotactic Radiosurgery Using a Radiomic Approach: A Preliminary Study

NR406-SD-TUB8 Station #8

Utility of Contrast-Enhanced Ultrasound in Preoperative Evaluation of Primary Hyperparathyroidism

NR399-SD-TUB1. Station #1

12:45–1:15 PM

Education Exhibits

It Is Not Always Adenoma: Other Sellar and Parasellar Injuries

NR341-ED-TUB10 Station #10

Lesions of the Pineal Region: A Clinical-Radiological Approach to Differential Diagnosis

NR345-ED-TUB11 Station #11

Old But Gold? The Role of Digital Sialography and Its Correlations with Other Diagnostic Methods in Modern Radiology

NR346-ED-TUB12. Station #12

WEDNESDAY, NOV 28, 2018

12:15–12:45 PM

Scientific Posters

An fMRI Study of Expert Radiologists and Non-Radiologists

NR413-SD-WEA6 Station #6

Artifact Reduction for Spectral Imaging Using a Three-state Projection-based Metal Artifact Reduction Algorithm

NR415-SD-WEA8 Station #8

Deep Learning for Acute Ischemic Stroke on Diffusion-Weighted MR Imaging

NR414-SD-WEA7. Station #7

Evaluation of Accumulation of The Gadolinium-based Contrast Agents on Brain Tissues of Subjects With No Brain Abnormalities Using Quantitative Mapping of Susceptibility and Gray Matter Tissue Volume

NR416-SD-WEA9 Station #9

Initial Clinical Experience of Synthetic MRI as a Routine Neuroimaging Protocol in Daily Practice: A Single-Center Study

NR411-SD-WEA4. Station #4

MRI Quantitative Phantom Study of OMAR/SEMAC Metal Suppression for Spine Instrumentation at 3T

NR409-SD-WEA2 Station #2

Peritumoral Bone Change in Oral Squamous Cell Carcinoma: A Prospective Study Through Radiologic-Pathologic Correlation

NR408-SD-WEA1 Station #1

Predicting Hemorrhagic Transformation by 3DpCASL Following Acute Stroke in Patients with Good Collateralization

NR412-SD-WEA5. Station #5

The Filter Back Projection Revisited: The Sharp Filter Kernel Improve the Visualization of the Adamkiewicz Artery in Low-kV CT Angiography

NR410-SD-WEA3 Station #3

12:15–12:45 PM

Education Exhibits

A User Guide for Head and Neck Lesions Evaluation with DIXON: Technical Adjustments and Potential Applications

NR350-ED-WEA12 Station #12

How the Ocular Ultrasound Helps the Ophtalmologist: Review of the Technique and the Most Frequent Pathologies Seen with Its Use in the Emergency Room

NR348-ED-WEA10 Station #10

Primary CNS Lymphoma: Role of the Radiologist from Diagnosis to Surveillance of the Disease

NR349-ED-WEA11. Station #11

12:45–1:15 PM

Scientific Posters

Acute Thrombectomy in the Ageing Population: A Retrospective Analysis of Radiological and Clinical Outcomes in Acute Thrombectomies Performed in Patients 80 Years and Older With an Intention to Treat Analysis

NR421-SD-WEB5. Station #5

Clinical Feasibility of 2 Minutes Ultrafast Brain MRI and MR Angiography Compared With Synthetic Brain MRI and Conventional MR Angiography: A Single Center Pilot Study

NR419-SD-WEB3. Station #3

Comparison of Compressed Sense and Conventional Technique for Magnetic Resonance Imaging of Brain in Paediatric Population

NR418-SD-WEB2. Station #2

CT Head Intracranial Hemorrhage Detection with Deep Learning: Experience with 9 Million Images

NR417-SD-WEB1 Station #1

Feasibility of Dual-Layer Detector Spectral CT-Derived Iodine Quantification for Focal Thyroid Lesions: A Pilot Study

NR422-SD-WEB6 Station #6

Functional Connectivity rsfMRI Study of Chess Experts and Novices

NR425-SD-WEB9 Station #9

Impact of Brain Tumors and Radiotherapy on the Presence of Gadolinium in the Brain After Repeated Administration of Gadolinium Based Contrast Agents: An Experimental Study on Rats

NR424-SD-WEB8 Station #8

Non-Contrast ASPECTS Region Density Predicts Final Infarction in Acute Ischemic Stroke

NR420-SD-WEB4 Station #4

Synthetic Brain MRI Obtained from T1 and T2 Imaging

NR423-SD-WEB7 Station #7

12:45–1:15 PM

Education Exhibits

Behind Those Eyes: What the Radiologist Needs to Know About Orbital Lesions

NR352-ED-WEB10. Station #10

Don't Fall Asleep at the Wheel! A Practical Guide for Obstructive Sleep Apnea Syndrome (OSAS) Imaging Evaluation

NR354-ED-WEB12. Station #12

Resident Primer: A Pattern-Based Approach to Central Nervous System Infection

NR353-ED-WEB11 Station #11

THURSDAY, NOV 29, 2018

12:15–12:45 PM

Scientific Posters

Application of Textural Analysis Method for Distinguishing Benign and Malignant Thyroid Nodules with Circinate Macrocalcification on CT Images

NR431-SD-THA6 Station #6

Automatic Generation of Synthesized Perfusion Maps from Multimodal MRI using a Deep Neural Network based Learning Scheme: A First Step Towards Quantification of Ktrans, Permeability, and Susceptibility Artifacts

NR428-SD-THA3. Station #3

Basic Consideration of the Facial Aging: Anatomic and MR Imaging Analysis of the Nasolabial Fold (NLF)s

NR430-SD-THA5 Station #5

Gadolinium and Ferumoxytol Contrast Agents Given in the Same Imaging Session for Brain MRI: Is It Feasible?

NR426-SD-THA1 Station #1

Incidence and Clinical Implications of FLAIR Signal Abnormality in the Internal Jugular Vein and Transverse and Sigmoid Sinuses on Brain MRI

NR429-SD-THA4 Station #4

MAGnetic Resonance Image Compilation (MAGIC): Is It Trustworthy?

NR427-SD-THA2 Station #2

12:15–12:45 PM

Education Exhibits

Dedicated Lower Cranial Nerve MRI Imaging, Anatomy, and Common Pathologies

NR351-ED-THA10 Station #10

Genetics and Imaging of Thyroid Cancer: 2018 Update

NR357-ED-THA8 Station #8

Neuroimaging of Epilepsy: The Integration of Structural and Functional Imaging Modalities

NR356-ED-THA7 Station #7

Pediatric Multiple Sclerosis: Imaging Spectrum and Differential Diagnosis

NR358-ED-THA9 Station #9

12:45–1:15 PM

Scientific Posters

Evaluation of Verbal Memory in Low-Grade Glioma Patients with F-MRI N-Back Paradigm

NR433-SD-THB2 Station #2

Heritability of Perivascular Space in Healthy Young Adult Twins: Evidence from the Human Connectome Project Database

NR436-SD-THB5 Station #5

Multimodality Sound Touch Elastography May Add a New Method to Ultrasound Evaluation of Thyroid cancer

NR435-SD-THB4 Station #4

Prediction of High Amyloid Deposition in Non-Demented Elderly Subjects Using a Marketed Volumetric Software Tool

NR432-SD-THB1 Station #1

Progressive White Matter Changes in Corticospinal Tracts in Different Clinical Stages of Patients with Amyotrophic Lateral Sclerosis

NR434-SD-THB3 Station #3

Voxel-based Simultaneous Analysis of Magnetic Susceptibility and Morphometry Using Magnetization-Prepared Spoiled Turbo Multiple Gradient Echo

NR437-SD-THB6 Station #6

12:45–1:15 PM**Education Exhibits**

Acute Ischemic Stroke Imaging and Management: A Current Review

NR361-ED-THB9 Station #9

Cranial Nerve Enhancement - The VICTIM of Range Group of Diseases

NR360-ED-THB8. Station #8

Sialadenitis and Salivary Gland Anatomy

NR359-ED-THB7. Station #7

The Hitchhiker's Guide to Idiopathic Normal Pressure Hydrocephalus: What the Radiologist Needs to Know

NR355-ED-THB10 Station #10

Education Exhibits

SPACE NO.	EXHIBIT TITLE
NR001-EB-X	Imaging of Bone-Related Disorders of the Jaw: Spectrum of Imaging Findings
NR002-EB-X	Non-Contrast-Enhanced Dual-Energy Computed Tomography (NE-DECT) for Acute Ischemic Stroke Before and After Endovascular Thrombectomy Treatment
NR003-EB-X	Noncontrast CT Findings of Early Ischemic Change: Evaluation with CT: Z-Score Mapping
NR004-EB-X	The Role of Imaging in the Age of Precision Medicine for the Accurate Assessment of Alzheimer's Disease
NR006-EB-X	CNS Imaging Manifestations of Sarcoidosis: A Pictorial Essay
NR007-EB-X	How to Read Contrast-Enhanced Synthetic MRI of the Brain
NR008-EB-X	MR Imaging Features for Intracranial Causes of Diplopia
NR009-EB-X	The Vessel Wall Imaging: Intracranial Vascular with Non-Enhanced Vascular Wall Imaging
NR010-EB-X	Diagnostic Values of Susceptibility - Weighted MR Imaging in Acute Ischemic Stroke
NR011-EB-X	Tricks and Pitfalls in the Diagnosis of Cerebral Venous Thrombosis
NR012-EB-X	Amide Proton Transfer Imaging for Brain Tumors: Initial Experience and Current Status
NR013-EB-X	Computed Tomography Guided Procedures for Acute and Chronic Back Pain and Lumbar Sympathicolytic and Ganglion Stellatum Blocks - How Do You Do It
NR014-EB-X	In Vivo Proton MR Spectroscopy in Diagnosis of Intracranial Cysts
NR015-EB-X	UICC 8th Edition of TNM Classification for Head and Neck Cancer: One More Step for Radiologists, a Giant Leap for Patients
NR017-EB-X	Pitfalls and Pearls in Presurgical and Postsurgical Evaluation of Patients With Thyroid Cancer

- NR018-EB-X** The Varying Faces of Progressive Multifocal Leukoencephalopathy
- NR019-EB-X** Algorithm Diagnostic Imaging in Intrathecal Drug Delivery Failure
- NR100-ED-X** Entering the Molecular Era: A Practical Imaging-Based Guide to Navigating the 2016 Updates to the WHO Classification of Pediatric Brain Tumors
- NR101-ED-X** Cavernicolous Pathologies of the Cavernous Sinus
- NR102-ED-X** The Indispensable Role of MRI in Preoperative Assessment of Cochlear Implant: CT is a Must but is it Enough?
- NR103-ED-X** God Gives the Nuts but He Doesn't Crack Them: Pictorial Review of TMJ Pathologies
- NR104-ED-X** Imaging Patterns of Diffuse Leptomeningeal Glioneuronal Tumor (DLGNT): A Recently Classified Rare CNS Tumor with Challenging Radiological Findings - 'A Wolf in Sheep's Clothing'
- NR105-ED-X** 'N Sync Hyperactive Neurons: Guide to Common Causes of Epilepsy
- NR106-ED-X** No Small Matter: Evolving Concepts of Sporadic Cerebral Small Vessel Disease and Implications for the Radiologist
- NR107-ED-X** Indications and Interpretations of CT Perfusion for Cerebral Ischemic Stroke
- NR108-ED-X** Brain Metastases: Be Careful! the Primary Tumor Is a Small Cell Lung Carcinoma!
- NR109-ED-X** Mandible and Maxilla Lesions: Shall We Go to the Operating Room?
- NR110-ED-X** Review of Cervical Lymph Nodes Not Included in the Numbered Image-Based Classification: Imaging and Clinical Significance
- NR111-ED-X** All-You-Can-See: Dynamic Volume Scan for Cerebral Infarction using 320-Detector-Row CT
- NR112-ED-X** Different Types of Post-Contrast 3-Dimensional T1-Weighted Sequences in Neuroradiology: Do Their Differences Matter?

NR113-ED-X	Esthesioneuroblastoma: The Past, Present, and Future
NR114-ED-X	Neurological Complications of Immunotherapy
NR115-ED-X	Brain Tumor Board Primer-Glioblastoma: What You Need to Know to Survive
NR116-ED-X	Neurosarcoidosis: Reviewing the Imaging Findings of a Rare Disease with Emphasis on Differential Diagnosis Based on Patterns of Involvement
NR117-ED-X	An Easy Overview of What Every Radiologist Should Know About Facial Nerve Palsy
NR118-ED-X	Can You Hear Me Now? Congenital and Acquired Causes of Sensorineural and Mixed Hearing Loss in Children
NR119-ED-X	Volume Brain CT Perfusion-Practical Technique, Analysis, and Pitfalls: What the Radiologist Needs to Know
NR120-ED-X	Complications of Neuro-Endovascular Treatments: Beyond the Procedures
NR121-ED-X	Clinically Feasible Quantitative Susceptibility Mapping and Susceptibility Weighted Imaging: Two-Minute 1mm-isotropic Voxel Imaging
NR122-ED-X	Post Traumatic Visual Loss: An Unusual Consequence of Cranial and Thoracic Trauma
NR123-ED-X	Abnormalities of the Cauda Equina in Adults: Imaging Review & Case Based Approach to Diagnosis
NR124-ED-X	Ring the Alarm! Powerful Tips on Ring-Enhancing CNS Lesions in HIV/AIDS Patients
NR125-ED-X	What if the Patient Has Ataxia? MRI Can Offer You a Helping Hand
NR126-ED-X	Acute Headache in the Emergency Setting
NR127-ED-X	Cavernous Sinus Lesions
NR128-ED-X	A Guided Journey through the Globe: Imaging Approach to Abnormalities in the Globes from Fetal Life to Late Childhood
NR129-ED-X	Eye Catching and Head Turning Devices: A Pictorial Review of Surgically Implanted Objects Encountered on Head Imaging

- NR130-ED-X** The Swollen Paortid
- NR131-ED-X** Stroke CT Perfusion Imaging: A Review of Quantitative and Qualitative Modalities
- NR132-ED-X** Multimodality Imaging Characteristics of HPV-Related Oropharyngeal Squamous Cell Carcinoma: Morphologic Radiologic Features and Quantitative Parameters
- NR133-ED-X** Radiological Evaluation of Head and Neck Cancer Patients Operated on and Reconstructed with Microvascular Free Flaps: Expected Findings
- NR134-ED-X** You're Fake News: Multi-Parametric MR Imaging of Glioblastoma After Treatment-Pseudoprogression, Pseudoresponse, and Beyond
- NR135-ED-X** Pseudocontinuous Arterial Spin Labeling: Clinical Applications and Usefulness in Head and Neck Entities
- NR136-ED-X** Trigeminal Nerve: From Simplified Anatomy to Complex Pathologies
- NR137-ED-X** Enjoy the Delicacy of Temporal Bone: From Embryology to Pathology-Part I: Embryology and Congenital Ear Abnormalities
- NR138-ED-X** Multiparametric MR Imaging of Salivary Gland Tumors: Radiologic-Pathologic Correlation
- NR139-ED-X** Petrous Apex Made Easy: Case-based Approach
- NR140-ED-X** Not Everything is as it Seems: Misdiagnosis of Incidental Enlarged Parathyroid
- NR141-ED-X** Diff'rent Strokes, Younger Folks: An Image-Based Review of Ischemic Infarction in Young Adults
- NR142-ED-X** External Carotid Artery: The Tale of 'The Other' Carotid
- NR143-ED-X** Staging of Laryngeal Cancer: Extralaryngeal Spread Beyond Direct Thyroid Cartilage Invasion
- NR144-ED-X** Unidentified Bright Objects (UBOs) on T2/FLAIR Beyond Small Vessel Ischemic Changes
- NR145-ED-X** Abnormalities of the Orbits: Beyond the ER Trauma

NR146-ED-X	Advanced Imaging Protocol to Improve the Image Quality of Carotid CT Angiography
NR147-ED-X	Extramedullary Spinal Cysts: Diagnosis and Image-Guided Interventions
NR148-ED-X	Sight for Sore Eyes: Review of Infectious and Inflammatory Orbital Pathology
NR149-ED-X	Pearls and Pitfalls of Thyroid Ultrasound Elastography
NR150-ED-X	Sphenoid Sinus Disease: A Pictorial Review
NR151-ED-X	Swallowing Abnormalities Associated with Stroke: Correlation Between Location of Lesions, Swallowing Patterns, and Therapeutic Recommendations
NR152-ED-X	Pediatric Leukodystrophies with an Emphasis on Diffusion-Weighted Imaging
NR153-ED-X	Don't Try to Cut the Corner When Evaluating Posterior Fossa: Rhombencephalitis Main Findings and How to Recognize the Major Differential Diagnosis
NR154-ED-X	Review: Essentials of NECT Head
NR155-ED-X	AJCC 2018 Head and Neck Cancer Staging Manual: Get Prepared for the ENT Tumor Board
NR156-ED-X	Am I Loitering Around a Diagnosis? No, It's Amyloidosis! A Review of Amyloid and Mimics for the Neuroradiologist
NR157-ED-X	The Role of Diagnostic Imaging in Oral Cavity Cancer
NR158-ED-X	Vascular Variants: Go with the Flow
NR159-ED-X	Radiological Approach for Depth of Invasion of the Oral Tongue Cancer Added in AJCC 8th Edition: Assessment of the Necessity of Elective Neck Dissection
NR160-ED-X	The Retrotympanum: A Pictorial Review of Its Variable Cross Sectional Anatomy and the Surgical Implications
NR161-ED-X	Ganglioglioma: A Tumor with Split Personality
NR162-ED-X	Pictorial Guide to Categorizing Post-Treatment Brain Tumor MRIs Using a Structured Reporting System

- NR163-ED-X** Epstein-Barr Virus Associated Nasopharyngeal Carcinoma: Pathogenesis and Evolving Imaging Features
- NR164-ED-X** Multimodality Imaging of Tumoral and Non-Tumoral Orbital Pathologies
- NR165-ED-X** Synthetic MRI in Neuroradiology: Imaging Findings, Clinical Applications, and Pitfalls
- NR166-ED-X** Neurosonography in Preterm Newborn: How, When, and Why to Do in the Clinical Practice?
- NR167-ED-X** Longitudinal Changes in the Brain MR Images in Mild Cognitive Impairment
- NR168-ED-X** Spectrum of Neurovascular Complications from Central Nervous System Infections (Viral, Bacterial, Fungal, and Parasitic)
- NR169-ED-X** Radiologic Evaluation of Auditory Brainstem Implant Candidates
- NR170-ED-X** Non-Traumatic Head and Neck Emergencies and Their Mimics: A Review of CT and MRI Findings and Differential Diagnostic Considerations
- NR171-ED-X** Radiologic-Pathologic Correlation for Differential Diagnosis Using Diffusion MRI with a Short Diffusion Time
- NR172-ED-X** Looking For a Needle In The Haystack: An Update in Parathyroid Imaging from Diagnosis to Treatment
- NR173-ED-X** Application of PET-MRI in Head and Neck Cancer: A Multimodality Imaging Approach
- NR174-ED-X** Thyroid Imaging Reporting and Data System: Pitfalls, Solutions, and Future Directions
- NR175-ED-X** When the "Good Girl" Became "Villain": Post-Vaccine Neurological Complications in MRI
- NR176-ED-X** Brain and Spinal Cord MRI Findings of Arboviruses in Adults: From West Nile to Japan
- NR177-ED-X** Multimodality Imaging Features of Tauopathies and Related Spectrum Disorders Demystified with a Check List Approach: What a Resident Must Know

NR178-ED-X	Multimodality Imaging Features of Synucleopathies and Related Spectrum Disorders Demystified with a Check List Approach: What a Resident Must Know
NR179-ED-X	Journey from TIRADS to ACR-TIRADS - Review of Existing Ultrasonographic Imaging Scoring Systems and Current Practice Guidelines for Risk Stratification of Thyroid Nodules
NR180-ED-X	Occupational Radiation Exposure of the Eye in Neurovascular Interventional Physician
NR181-ED-X	Spot Sign Y Leakage Sign: It Is Possible to Predict the Expansion of the Cerebral Hematomas?
NR182-ED-X	Paranasal Sinus Tumors: Imaging Protocol and Diagnostic Algorithm - A Pictorial Review
NR183-ED-X	Abnormal Spinal Cord Signal: A Systematic Approach to Differentiate Myelitis from Its Mimics
NR184-ED-X	Neuro-Ophthalmic Imaging in Cancer Patients
NR185-ED-X	Imaging Findings of Amyloidosis in the Head and Neck
NR186-ED-X	Cranio Vertebral Junction Abnormalities: Radiological Assessment and Image Based Review
NR187-ED-X	The Neurovascular Conflict Zones of Cranial Neuralgias: Close Encounters of Micro Vascular Kind
NR188-ED-X	'Altered Mental Status' in a Patient with Cancer: What Can a Radiologist See?
NR189-ED-X	Assessment of Quantitative Analysis Methods of Thyroid-Associated Orbitopathy. Imaging Findings and Indications
NR190-ED-X	Thyroid and Cervical Lymph Node Levels Ultrasound Assessment: A Resident's Guide
NR191-ED-X	Imaging of Uncommon Sellar Masses
NR192-ED-X	Changes on EEG: A Primer to the Interpreting Neuroradiologist!
NR193-ED-X	Revealing the Ventral and Dorsal Language Streams of the Human Brain

- NR194-ED-X** Finding the Cause: Correlation Between Audiogram and Imaging Findings in Hearing Loss
- NR195-ED-X** Endogenous and Exogenous Neurotoxic Syndromes: Pictorial Review
- NR196-ED-X** MRI Findings of Anti-Myelin Oligodendrocyte Glycoprotein (Anti MOG) Antibodies Spectrum Disorder, NMOSD and MS: Is There Any Difference?
- NR197-ED-X** Improved Imaging of Craniosynostosis with Cinematic Rendering and ZTE MRI
- NR198-ED-X** Role of Multi-Slice CT Scan in Buccal Mucosa Malignancy
- NR199-ED-X** Salvaging the Brain: The Golden Hour & Beyond Arterial Spin Labeling - A Novel Non-Contrast MRI Perfusion Technique in Guiding Management and Predicting Prognosis in Hyperacute Stroke
- NR200-ED-X** 1H-MR Spectroscopy in Differential Diagnosis of Intracranial Masses: Can It Be a Conclusive Factor?
- NR201-ED-X** Exploring Eloquent Frontal Areas by fMRI & DTI in Neurosurgical Patients
- NR202-ED-X** Utility of Perfusion-Weighted MRI to Evaluate Brain Tumor
- NR203-ED-X** "Percentage Signal Intensity Recovery": An Underutilized MR Perfusion Parameter in the Differentiation of Common Brain Tumors!
- NR204-ED-X** Revisiting MR Imaging Features of Intracranial Hypotension: Do We Really Need Lumbar Puncture to Establish Diagnosis?
- NR205-ED-X** Effect of Connecting Part of Extension Table on Radiation Dose and Image Quality at Head CT Scan
- NR206-ED-X** Posterior Fossa Neuroenteric Cysts: Uncommon Cystic Lesions - A Pictorial Review and Review of Literature
- NR207-ED-X** Dual Energy CT Cisternography for the Identification of the Site of CSF Fistula in Cases of Cranial CSF Leak
- NR208-ED-X** Usefulness of Dynamic Maneuvers in MRI for Oral Cancers - Making Invisible, Visible

NR209-ED-X	MR Imaging of Neurodegenerative Disorders: A Pictorial Review
NR210-ED-X	Differential Diagnosis of Brain Calcifications
NR211-ED-X	Determining Brain Death in Pediatric Patients and in Adult Population
NR212-ED-X	Role of MRI CSF Flowmetry in Comprehensive Evaluation of Hydrocephalus
NR213-ED-X	Read Like an Expert: Sinonasal Opacification, What the Otorhinolaryngologist Wants to Know?
NR214-ED-X	Neurological Complications Post Allogeneic Hematopoietic Cell Transplant: A Pictorial Review
NR215-ED-X	Bright Objects in the Orbit: Imaging of Implanted Orbital Devices, Calcifications, and Foreign Bodies
NR216-ED-X	MR Imaging Diagnosis of the Parotid Tumor Including DWI, Dynamic Study, and Arterial Spin Labeling Perfusion Weighted Image
NR217-ED-X	CT-Guided Percutaneous Biopsy of Head and Neck Lesions
NR218-ED-X	Intracranial Aneurysms Assessment: What the Radiologists Should Report
NR219-ED-X	Parathyroid 4D CT: What the Endocrine Surgeon Wants to Know
NR220-ED-X	Besides Sinonasal Polyposis: What We Need to Know?
NR221-ED-X	Concepts in Head and Neck Imaging: A Case-Based Review
NR222-ED-X	Blow Your Mind: How Much Do You Know About Cerebral Herniation?
NR223-ED-X	Multimodal Imaging of Tumefactive Demyelination: A Comprehensive Review
NR224-ED-X	Application of Magnetic Resonance High-Resolution Vessel Wall Imaging (HR-VWI) in Patients with Carotid Plaque
NR225-ED-X	Unusual Infectious and Inflammatory Disorders of the Brain
NR226-ED-X	Dural Thickening: Look Beyond the Brain
NR227-ED-X	'Tone It Down!': A Radiological Statement Towards the Cerebral Vasospasm

- NR228-ED-X** Basic Knowledge of Dental Radiology: What Medical Radiologists Need to Know
- NR229-ED-X** Water Balloon Technique in USG of Carcinoma Buccal Mucosa: Corollary to Puffed Cheek CT
- NR230-ED-X** Ultrasonographic Abnormalities of the Salivary Glands in Sjögren's Syndrome: A Review of Characteristic Imaging Findings and a Discussion of an Institution Specific Grading Scale
- NR231-ED-X** A Systematic, Location-Based Approach to Congenital Brain Abnormalities
- NR232-ED-X** Circumscribed Gliomas - WHO 2016
- NR234-ED-X** Multimodality Imaging of the Salivary Gland: Inflammatory and Lymphoproliferative Disease vs. Benign and Malignant Tumors
- NR235-ED-X** See it, Slice it, Learn it: Combining Ultra High Field MRI, CT and Thin-Sheet Plastination for Multi-Media Cadaveric Head and Neck Anatomy Teaching
- NR236-ED-X** Go with the Flow - Applications of MRI Cine Phase Contrast CSF Study
- NR237-ED-X** Imaging Evaluation of Otosclerosis: What the Otologist Needs to Know
- NR238-ED-X** What Is in Your Eye? Postoperative Orbital Imaging and Pitfalls
- NR239-ED-X** Conventional and Advanced MRI Descriptors to Improve Imaging Diagnostic Accuracy of Tumefactive Demyelination - Experience from 22 Biopsy Proven Cases
- NR240-ED-X** Stuck in the Middle: Nervus Intermedius Related Neuropathologic Imaging Spectrum
- NR241-ED-X** Rarely, Fat Is a Friend Not a Foe: Uncommon Fat Containing Lesions in the Brain
- NR242-ED-X** Unmasking of Meningioma Mimics - Radiopathological Correlation
- NR243-ED-X** What Went Wrong?: Ventriculo-Peritoneal Shunt Complications
- NR244-ED-X** Do You Hear What I Hear - Diagnostic Work-Up and Differential Diagnosis of Pulsatile Tinnitus

- NR245-ED-X** Revisiting Granulomatous Diseases in Head and Neck: A Pictorial Essay
- NR246-ED-X** Above and Beyond Hypopharynx Imaging - Understanding Anatomy, Lesions, and Staging
- NR247-ED-X** A Review of the Novel Technique of Neuroimaging using Hyperpolarized Xenon-129 MRI.
- NR248-ED-X** What You Have Not Thought About! - Uncommon Spinal Epidural Space Lesions
- NR249-ED-X** Radiology of the Cavernous Sinus - The Intracranial Melting Pot of Pathologies
- NR250-ED-X** Updates of Anaplastic Thyroid Cancer: Diagnosis, Molecular Genetics, and Treatment
- NR251-ED-X** Anatomy and Pathology of the Skull Base: A Pictorial Overview
- NR252-ED-X** Infectious Ring Enhancing Lesions of the Brain - MRI Clues for Etiological Diagnosis
- NR253-ED-X** Don't Get Nervous: Simple Approach to Learning Cranial Nerve Anatomy and Pathology
- NR254-ED-X** A Jaw-Dropping Review of Temporomandibular Joint Imaging - Anatomy, Disorders, and Postoperative Features
- NR255-ED-X** MR Findings of Meningioma: Radiologists Can Help Inform Neurosurgeons of More Than Location, Signal Changes, and Contrast-Enhancement
- NR256-ED-X** Non-Neoplastic Lesions of Corpus Callosum - A Primer for the Neuroradiologist
- NR257-ED-X** Depth of Invasion as a New Parameter in Oral Cavity TNM. Is It Just an Anatomopathological Measurement?
- NR258-ED-X** Temporal Bone Trauma: Typical CT and MRI Images with Important Points in Evaluation
- NR259-ED-X** Cortical Laminar Necrosis: Standard and Advanced Mr Imaging Findings
- NR260-ED-X** Cerebral Vascular Abnormalities: A Review

- NR261-ED-X** Imaging Findings in CNS Infection: A Systematic Review
- NR262-ED-X** Risk Stratification of Intracranial Vascular Pathology using 4D Flow MRA: The Role of Hemodynamics
- NR263-ED-X** Orthognathic Surgery: A Primer for Reporting and Main Complications
- NR264-ED-X** Atlas of Craniotomy Approaches
- NR265-ED-X** Pitfalls in Interpretation of Head and Neck PET-CT
- NR266-ED-X** Post-Operative Temporal Bone
- NR267-ED-X** Arterial Spin Labelling for Head and Neck Lesions Assessment: Physical Basis and Clinical Applications
- NR268-ED-X** This Isn't Another Review of Cholesteatoma: Tips and Tricks from MDCT Basics to Advanced MRI Techniques
- NR269-ED-X** An Educational Approach for Brain Vascular Malformations: Not All Are AVMs!
- NR270-ED-X** Lumps and Bumps of Calvarial and Scalp Regions: Pictorial Essay
- NR271-ED-X** Diagnostic Approach to Intrinsic Spinal Cord Signal Abnormality
- NR272-ED-X** Otosclerosis and Differential Diagnosis with Osseous Dysplasias Affecting the Temporal Bone
- NR273-ED-X** Neuroimaging of Emergent and Reemergent Infection
- NR274-ED-X** Craniopagus Twins: What the Radiologist Needs to Know
- NR275-ED-X** Do Not Be Entangled! Carotid Web - Imaging Features of an Uncommon Stroke Etiology
- NR276-ED-X** Head & Neck Post Operative Surgical Flap Reconstruction: A Comprehensive Pictorial Review
- NR277-ED-X** 4D MR Angiography Using Arterial Spin-Labeling with and Without Ultrashort TE: Impact on Neurovascular Imaging
- NR278-ED-X** Alternate Routes for CSF Collection
- NR279-ED-X** Many Faces of Granulomatous Lesions of Head and Neck

NR280-ED-X	Ultrasound Imaging Album of Thyroid Pathology: The Essentials Every Radiologist Must Know
NR281-ED-X	Diseases of the Sinonasal Cavity
NR282-ED-X	CNS Coccidioidomycosis Imaging Manifestations
NR283-ED-X	Review and Update of the Latest Published Guidelines for Endovascular Management of Acute Ischemic Stroke
NR284-ED-X	Potential Pitfalls of MR Spectroscopy
NR285-ED-X	The Mechanisms and Origins of Spinal Pain, from Molecules to Anatomy, Pathology, and the Imaging Findings
NR286-ED-X	Cortical Restricted Diffusion Patterns on MRI: What the Radiologist Needs to Know
NR287-ED-X	Clinical Applications of Susceptibility Weighted MR Imaging in Stroke Focusing on Blood Vessels and Vessel Walls
NR288-ED-X	Runny Nose and Runny Ears: Imaging in Cerebrospinal Fluid Leaks - What a Radiologist Should Know?
NR289-ED-X	Intracranial Manifestations of Autoimmune Diseases - A Case Based Review
NR290-ED-X	Metastatic and Other Lesions of the Clivus: A Review
NR291-ED-X	PET Imaging in Neuro-Oncology: A Radiological Primer
NR292-ED-X	Imaging of the Nasolacrimal Drainage Apparatus
NR293-ED-X	Few and Far Between - Imaging of Uncommon Intracranial Dural Pathologies
NR294-ED-X	Chiari I Malformation: A Diagnostic Conundrum
NR295-ED-X	Looping Around the Pterygopalatine Fossa - A Crossway for Perineural Tumour Spread
NR296-ED-X	Ear or There: Demystifying Referred Otalgia Using the 15 T Framework
NR297-ED-X	Reversible Vigabatrin-Induced Cerebral MRI Changes: Findings That Every Radiologist Should Be Aware
NR298-ED-X	Pediatric Vascular Disease: Thinking Outside the Box of Atherosclerosis

- NR299-ED-X** A Pinch of Salt, A Dash of Pepper - A Tasteful Review and Update on Head and Neck Paragangliomas
- NR300-ED-X** Systematic Approach on MRI Evaluation of Cranial Nerves
- NR301-ED-X** Which Are the Biomechanical and Clinical Implications of a Lumbosacral Transitional Vertebra?
- NR302-ED-X** Intrinsic Non-Neoplastic Myelopathy
- NR303-ED-X** Imaging Spectrum of Various Disease Entities Involving Fornix
- NR304-ED-X** High Resolution Vessel Wall MRI: Applications to Diagnosis and Prognosis of Atherosclerotic and Non-Atherosclerotic Disease
- NR305-ED-X** Fungal Brain Infections Revisited: Review of Literature and Multimodality Imaging Findings
- NR306-ED-X** 'There Is a Better Way, Find It': Clinical, Radiological, and Intraoperative Features of Routine and Alternative Cervical Surgical Accesses for Advanced Head and Neck Primary Tumors
- NR307-ED-X** It Is Not as Simple as It Seems - Imaging of Lateral Ventricular Tumors
- NR308-ED-X** Quantitative MR imaging as a Clinical Application: How We Perform It and What We Can Extract
- NR309-ED-X** Paint the Brain Brown: Pigmented Lesions in Neuroimaging with Histopathological Correlation
- NR310-ED-X** The Imaging Spectrum of Ectopic Gas in the Brain, Head, and Neck Head CT and MRI
- NR311-ED-X** E.R. Alert! Head and Neck Emergencies in Oncologic Patients
- NR312-ED-X** Acute Infections of the Neck: What Every Radiologist Should Know and Quickly Recognize
- NR313-ED-X** Malformation Transformation: A Review of Pre and Post-Surgical Imaging in Arnold-Chiari Malformations
- NR314-ED-X** Cerebral Microvascular Imaging with Ferumoxytol-Enhanced MRI
- NR315-ED-X** Salivary Gland Tumors

NR316-ED-X	Lumbar Spine Nomenclature Version 2.0 - A Pictorial Review
NR317-ED-X	Too Much of Air - Boon or Bane: Sphenoid Sinus Pneumatisation and Its Impact on Central Skull Base Lesions - A Cross Sectional Imaging Study
NR318-ED-X	Looking for Radiologic Clues to Discover Cerebral Venous Thrombosis
NR319-ED-X	Post-Treatment Imaging of the Brain
NR320-ED-X	Caution! Toxic and Metabolic Brain Disorders
NR321-ED-X	Demystifying the Mystery of Brain Fog: An Algorithmic Approach to Dementia Using Structural and Functional MRI Sequences
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