

## CME Information

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- 1011 Acute Abdominal Pain: Is There a Potential Role for MRI in the Setting of the Emergency Department in a Patient with Renal Calculi?**

## Reviews

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**CME**

- 1012 Acute Abdominal Pain: Is There a Potential Role for MRI in the Setting of the Emergency Department in a Patient with Renal Calculi?**

*Bobby Kalb, Puneet Sharma, Khalil Salman, Kenneth Ogan, John G. Pattaras, and Diego R. Martin*

- 1024 Real-Time Diffusion-Perfusion Mismatch Analysis in Acute Stroke**

*Matus Straka, Gregory W. Albers, and Roland Bammer*

## Original Research

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### Neuroimaging

- 1038 Combined Use of Neuroradiology and <sup>1</sup>H-MR Spectroscopy May Provide an Intervention Limiting Diagnosis of Glioblastoma Multiforme**

*Greg A. Fellows, Alan J. Wright, Naomi A. Sibtain, Phil Rich, Kirstie S. Opstad, Dominick J.O. McIntyre, B. Anthony Bell, John R. Griffiths, and Franklyn A. Howe*

- 1045 Lower Brain Glutamate Is Associated With Cognitive Deficits in HIV Patients: A New Mechanism for HIV-Associated Neurocognitive Disorder**

*Thomas Ernst, Caroline S. Jiang, Helenna Nakama, Steven Buchthal, and Linda Chang*

- 1054 Effects of Formalin Fixation on Magnetic Resonance Indices in Multiple Sclerosis Cortical Gray Matter**

*Klaus Schmierer, Janet R. Thavarajah, Shu F. An, Sebastian Brandner, David H. Miller, and Daniel J. Tozer*

- 1061 MRI of the Neck at 3 Tesla Using the Periodically Rotated Overlapping Parallel Lines with Enhanced Reconstruction (PROPELLER) (BLADE) Sequence Compared with T2-Weighted Fast Spin-Echo Sequence**

*Yoshimitsu Ohgiya, Jumpei Suyama, Noritaka Seino, Shu Takaya, Masaaki Kawahara, Makoto Saiki, Syouei Sai, Masanori Hirose, and Takehiko Gokan*

- 1068 Feasibility and Precision of Cerebral Blood Flow and Cerebrovascular Reactivity MRI Measurements Using a Computer-Controlled Gas Delivery System in an Anesthetised Juvenile Animal Model**

*Jeff D. Winter, Jorn Fierstra, Stephanie Dörner, Joseph A. Fisher, Keith S. St. Lawrence, and Andrea Kassner*

- 1076 In Vivo MR Imaging Tracking of Transplanted Mesenchymal Stem Cells in a Rabbit Model of Acute Peripheral Nerve Traction Injury**

*Jun Shen, Xiao-Hui Duan, Li-Na Cheng, Xiao-Mei Zhong, Ruo-Mi Guo, Fang Zhang, Cui-Ping Zhou, and Bi-Ling Liang*

### Cardiovascular Imaging

- 1086 Improved Aortic Pulse Wave Velocity Assessment From Multislice Two-Directional In-Plane Velocity-Encoded Magnetic Resonance Imaging**

*Jos J.M. Westenberg, Albert de Roos, Heynric B. Grotenhuis, Paul Steendijk, Dennis Hendriksen, Pieter J. van den Boogaard, Rob J. van der Geest, Jeroen J. Bax, J. Wouter Jukema, and Johan H.C. Reiber*

- 1095 Myocardial T2\* Is Not Affected by Ageing, Myocardial Fibrosis, or Impaired Left Ventricular Function**

*Paul Kirk, Gillian C. Smith, Michael Roughton, T. He, and Dudley J. Pennell*

- 1099 Comparison of Magnetic Resonance Imaging with Transthoracic Echocardiography in the Diagnosis of Ventricular Septal Defect-Associated Coronary Cusp Prolapse**

*Norihiko Yoshimura, Yoshiro Hori, Yousuke Horii, Hiroshi Suzuki, Satoshi Hasegawa, Masashi Takahashi, and Hiroshi Watanabe*

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- 1104 Distribution of Cardiac Iron Measured by Magnetic Resonance Imaging (MRI)-R<sub>2</sub>\***  
*Jin Yamamura, Regine Grosse, Joachim Graessner, Gritta E. Janka, Gerhard Adam, and Roland Fischer*
- Thoracic Imaging**
- 1110 4D Time-Resolved Magnetic Resonance Angiography for Noninvasive Assessment of Pulmonary Arteriovenous Malformations Patency**  
*Loic Bousset, Alexandru Cernicanu, Liesbeth Geerts, Delphine Gamondes, Chahera Khouatra, Vincent Cottin, Didier Revel, and Philippe Douek*
- Breast Imaging**
- 1117 Peripheral Hyperintense Pattern on T2-Weighted Magnetic Resonance Imaging (MRI) in Breast Carcinoma: Correlation With Early Peripheral Enhancement on Dynamic MRI and Histopathologic Findings**  
*Hiroko Kawashima, Miki Kobayashi-Yoshida, Osamu Matsui, Yoh Zen, Masayuki Suzuki, and Masafumi Inokuchi*
- 1124 Association Between Serial Dynamic Contrast-Enhanced MRI and Dynamic <sup>18</sup>F-FDG PET Measures in Patients Undergoing Neoadjuvant Chemotherapy for Locally Advanced Breast Cancer**  
*Savannah C. Partridge, Risa K. Vanantwerp, Robert K. Doot, Xiaoyu Chai, Brenda F. Kurland, Peter R. Eby, Jennifer M. Specht, Lisa K. Dunwald, Erin K. Schubert, Constance D. Lehman, and David A. Mankoff*
- Gastrointestinal Imaging**
- 1132 Diagnosis of Colorectal Hepatic Metastases: Contrast-Enhanced Ultrasonography Versus Contrast-Enhanced Computed Tomography Versus Superparamagnetic Iron Oxide-Enhanced Magnetic Resonance Imaging With Diffusion-Weighted Imaging**  
*Ali Muhi, Tomoaki Ichikawa, Utaroh Motosugi, Hironobu Sou, Hiroto Nakajima, Katsuhiko Sano, Takatoshi Kitamura, Zareen Faima, Kimiyo Fukushima, Tsutomu Araki, Hiroshi Iino, Yoshiyuki Mori, and Hideki Fujii*
- 1141 Diffusion Tensor Imaging of Liver Fibrosis in an Experimental Model**  
*Jerry S. Cheung, Shu Juan Fan, Darwin S. Gao, April M. Chow, Kwan Man, and Ed X. Wu*
- Genitourinary Imaging**
- 1149 Semi-automatic Deformable Registration of Prostate Mr Images to Pathological Slices**  
*Yousef Mazaheri, Louisa Bokacheva, Dirk-Jan Kroon, Oguz Akin, Hedvig Hricak, Daniel Chamudot, Samson Fine, and Jason A. Koutcher*
- 1158 Screening for Embryonic Loss During in Utero Development of Mice with a Human 1.5 Tesla Clinical MRI Scanner**  
*Ruth Gruemmer, Stefan Maderwald, Elke Winterhager, and Elke Hauth*
- Vascular Imaging**
- 1166 Prospective Comparison of Image Quality and Diagnostic Accuracy of 0.5 Molar Gadobenate Dimeglumine and 1.0 Molar Gadobutrol in Contrast-Enhanced Run-Off Magnetic Resonance Angiography of the Lower Extremities**  
*Marina Achenbach, Jens H. Figiel, Mykhaylo Burbelko, and Johannes T. Heverhagen*
- Body Imaging**
- 1172 Combined Off-Resonance Imaging and T2 Relaxation in the Rotating Frame for Positive Contrast MR Imaging of Infection in a Murine Burn Model**  
*Ovidiu C. Andronesi, Dionyssios Mintzopoulos, Nikolaos Psychogios, Meenu Kesarwani, Jianxin He, Shingo Yasuhara, George Dai, Laurence G. Rahme, and Aria A. Tzika*
- Technical Developments**
- 1184 Optimization of High-Resolution USPIO Magnetic Resonance Imaging at 4.7 T Using Novel Phantom With Minimal Structural Interference**  
*Henrik Antell, Jussi Numminen, Usama Abo-Ramadan, Mika R. Niemelä, Juha A. Hernesniemi, and Marko Kangasniemi*
- 1197 Fast Algorithm for Calculation of Inhomogeneity Gradient in Magnetic Resonance Imaging Data**  
*Cheukkai Hui, Yu Xiang Zhou, and Ponnada Narayana*
- 1209 Local SAR Reduction in Parallel Excitation Based on Channel-Dependent Tikhonov Parameters**  
*Martijn Anton Cloos, Michel Luong, Guillaume Ferrand, Alexis Amadon, Denis Le Bihan, and Nicolas Boulant*
- 1217 Reconstruction of 3D Dynamic Contrast-Enhanced Magnetic Resonance Imaging Using Nonlocal Means**  
*Ganesh Adluru, Tolga Tasdizen, Matthias C. Schabel, and Edward V.R. DiBella*

**1228 Faster Dynamic Imaging of Speech With Field Inhomogeneity Corrected Spiral Fast Low Angle Shot (FLASH) at 3 T**

*Bradley P. Sutton, Charles A. Conway, Youkyung Bae, Ravi Seethamraju, and David P. Kuehn*

**Clinical Note**

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**1238 Magnetic Resonance Imaging Findings in Extrauterine Malignant Mixed Mullerian Tumors: Report of Two Cases**

*Jeong-Hee Yoon, Jeong Yeon Cho, Sung Il Hwang, Hak-jong Lee, and Seung-Hyup Kim*

**Technical Notes**

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**1242 Method for Simultaneous Voxel-Based Morphometry of the Brain and Cervical Spinal Cord Area Measurements Using 3D-MDEFT**

*Patrick A.B. Freund, Catherine Dalton, Claudia A.M. Wheeler-Kingshott, Janice Glensman, David Bradbury, Alan J. Thompson, and Nikolaus Weiskopf*

**1248 Chemical Shift Imaging in the Head and Neck at 3T: Initial Results**

*David K.W. Yeung, Kwan-Ying Fong, Queenie C.C. Chan, and Ann D. King*

**1255 Noncontrast SSFP Pulmonary Vein Magnetic Resonance Angiography: Impact of Off-Resonance and Flow**

*Peng Hu, Christian T. Stoeck, Jouke Sminck, Dana C. Peters, Long Ngo, Beth Goddu, Kraig V. Kissinger, Lois A. Goepfert, Jonathan Chan, Thomas H. Hauser, Neil M. Rofsky, Warren J. Manning, and Reza Nezafat*

**1262 Spiral Water-Fat Imaging with Integrated Off-Resonance Correction on a Clinical Scanner**

*Peter Börnert, Peter Koken, and Holger Eggers*

**Book Review**

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**1268 Reference Manual for Magnetic Resonance Safety, Implants, and Devices: 2010 Edition**

*Diego R. Martin*

**Erratum**

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**1269 Wichlas F, Bail JH, Seebauer CJ, et al. Development of a Signal-Inducing Bone Cement for Magnetic Resonance Imaging. *J Magn Reson Imaging* 2010;31:636-644**