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May 2009

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Clinical Publications – May 2009



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fast diagnosis to save time, lives and money, proven by 5 publications.

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with 12 released applications and Optimum Contrast. Proven by more than 40 publications.



The Highlights

Faster than every beating heart

Achenbach, JACC 2008
200 patients, 64-slice vs. DSCT:
IQ and diagnostic accuracy remain unaffected in DSCT
even in high heart rates

JACC: CARDIOVASCULAR IMAGING
A JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY FOUNDATION
PUBLISHED BY ELSEVIER INC.

Randomized Comparison of 64-Slice Single- and Dual-Source Computed Tomography Coronary Angiography for the Detection of Coronary Artery Disease

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Katharina Anders, MD,† Tobias Blakner, MD,* Sei Komasa, MD,* Werner Baets, MD,†
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Full cardiac detail at half the dose

Scheffel, Heart 2008
120 patients, low dose coronary CTA:
DSCT allows for the accurate diagnosis of significant
coronary stenoses at a low radiation dose of 2.5 mSv



Low-Dose CT Coronary Angiography in the Step-and-Shoot Mode: Diagnostic Performance

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One-stop shop in Acute Care

Johnson, Eur Radiol 2007
109 patients, DSCT for triple rule-out:
Overall sensitivity for identification of the cause
of chest pain: 98 %

Eur Radiol (2008) 18: 773-780
DOI 10.1007/s00130-007-0601-y

COMPUTER TOMOGRAPHY

Thorsten H. C. Johnson
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Alexander Becker
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Carsten Riis
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Dual-source CT for chest pain assessment

Received: 3 March 2007
Revised: 2 October 2007
Accepted: 13 October 2007
Published online: 22 November 2007
© Springer Science+Business Media B.V. 2007

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M. F. Reiser · C. R. Becker

Abstract Comprehensive CT angiography protocols offering a simultaneous evaluation of pulmonary embolism, coronary stenoses and acute aortic disease are gaining attractiveness with recent CT technology. The aim of this study was to assess the diagnostic accuracy of a specific dual-source CT

viewed for further diagnosis. Technical limitations were insufficient contrast opacification in six and artifact from respiratory in three patients. The most frequent diagnoses were coronary stenoses, valvular and myocardial disease, pulmonary embolism, aortic aneurysm and dissection.

Beyond visualization with Dual Energy

Ruszics, Eur Radiol 2008
35 patients, myocardial perfusion:
In a single scan you can do plaque characterization
and also myocardial blood-pool scanning

Eur Radiol
DOI 10.1007/s00130-008-1022-x

CARDIAC IMAGING

Balazs Ruszics
Hoon Lee
Peter L. Zwerner
Malageta Gebreyesabher
Philip Costello
U. Joseph Schoepf

Dual-energy CT of the heart for diagnosing coronary artery stenosis and myocardial ischemia—initial experience

The Publications

Title	Date	Name	Journal	Ref #
Topic: Cardiac				
Accuracy of dual-source CT coronary angiography: First experience in a high pre-test probability population without heart rate control.	Sep 2006	Scheffel H, Alkadhi H, Plass A, Vachenaue R, Desbiolles L, Gaemperli O, Schepis T, Frauenfelder T, Schertler T, Husmann L, Grunenfelder J, Genoni M, Kaufmann PA, Marincek B, Leschka S.	Eur Radiol. 2006 Dec; 16(12):2739-47. Epub 2006 Sep 19.	PMID: 17031451 [PubMed – indexed for MEDLINE]
Accuracy of dual-source CT in the characterization of non-calcified plaque: use of a colour-coded analysis compared with virtual histology intravascular ultrasound.	Mar 2009	Brodoefel H, Burgstahler C, Heuschmid M, Reimann A, Khosa F, Kopp A, Schroeder S, Claussen C, Clouse M.	Br J Radiol. 2009 Mar 30. [Epub ahead of print]	PMID: 19332517 [PubMed – as supplied by publisher]
Anatomical investigation of the sinus node artery using dual-source computed tomography.	Aug 2008	Zhang LJ, Wang YZ, Huang W, Chen P, Zhou CS, Lu GM.	Circ J. 2008 Oct; 72(10):1615-20. Epub 2008 Aug 27.	PMID: 18728333 [PubMed – indexed for MEDLINE]
An Aneurysmal Left Circumflex Artery-to-Right Atrium Fistula in a Patient with Ischemic Symptoms: Accurate Diagnosis with Dual-Source CT Angiography.	Aug 2007	Oncel D, Oncel G.	Cardiovasc Intervent Radiol. 2008 Jul; 31 Suppl 2:S22-5. Epub 2007 Aug 7.	PMID: 17680302 [PubMed – indexed for MEDLINE]
Aortic root morphology in patients undergoing percutaneous aortic valve replacement: evidence of aortic root remodeling.	Feb 2009	Akhtar M, Tuzcu EM, Kapadia SR, Svensson LG, Greenberg RK, Roselli EE, Halliburton S, Kurra V, Schoenhagen P, Sola S.	J Thorac Cardiovasc Surg. 2009 Apr; 137(4):950-6. Epub 2009 Feb 23.	PMID: 19327523 [PubMed – indexed for MEDLINE]
Aortic valves stenosis and regurgitation: assessment with dual source computed tomography.	Apr 2009	Li X, Tang L, Zhou L, Duan Y, Yanhui S, Yang R, Wu Y, Kong X.	Int J Cardiovasc Imaging. 2009 Apr 7. [Epub ahead of print]	PMID: 19350414 [PubMed - as supplied by publisher]
Assessment of Aortic Stenosis after Aortic Valve Replacement: Comparative Evaluation of Dual-Source CT and Echocardiography.	May 2008	Saam T, Oberhoffer M, Rist C, Minaifar N, Vogt F, Reichart B, Becker C, Reiser M, Nikolaou K.	Rofo. 2008 May; 180(6):553-60. German.	PMID: 18504666 [PubMed – indexed for MEDLINE]
Assessment of global left and right ventricular function using dual-source computed tomography (DSCT) in comparison to MRI: an experimental study in a porcine model.	Nov 2007	Bruners P, Mahnken AH, Knackstedt C, Luhmann N, Spüntrup E, Das M, Hohl C, Wildberger JE, Schmitz-Rode T, Günther RW, Mühlenbruch G.	Invest Radiol. 2007 Nov; 42(11):756-64.	PMID: 18030198 [PubMed – indexed for MEDLINE]
Assessment of image quality of 64-row Dual Source versus Single Source CT coronary angiography on heart rate: A phantom study.	Mar 2008	Dijkers R, Greuter MJ, Kristanto W, van Ooijen PM, Sijens PE, Willems TP, Oudkerk M.	Eur J Radiol. 2009 Apr; 70(1):61-8. Epub 2008 Mar 4.	PMID: 18308496 [PubMed – in process]
Assessment of regional left ventricular function by Dual Source Computed Tomography: Interobserver variability and validation to laevocardiography.	Jul 2008	Pflederer T, Ho KT, Anger T, Krähner R, Ropers D, Muschiol G, Renz A, Daniel WG, Achenbach S.	Eur J Radiol. 2008 Jul 9. [Epub ahead of print]	PMID: 18619752 [PubMed – as supplied by publisher]
A technical solution to avoid partial scan artifacts in cardiac MDCT.	Dec 2007	Primak AN, Dong Y, Dzyubak OP, Jorgensen SM, McCollough CH, Ritman EL.	Med Phys. 2007 Dec; 34(12):4726-37.	PMID: 18196800 [PubMed – indexed for MEDLINE]
Atrial myxomas and thrombi: comparison of imaging features on CT.	Mar 2009	Scheffel H, Baumueeller S, Stolzmann P, Leschka S, Plass A, Alkadhi H, Schertler T.	AJR Am J Roentgenol. 2009 Mar; 192(3):639-45.	PMID: 19234259 [PubMed – indexed for MEDLINE]
Automated threshold-based 3D segmentation versus short-axis planimetry for assessment of global left ventricular function with dual-source MDCT.	Feb 2008	Juergens KU, Seifarth H, Range F, Wienbeck S, Wenker M, Heindel W, Fischbach R.	AJR Am J Roentgenol. 2008 Feb; 190(2):308-14.	PMID: 18212214 [PubMed – indexed for MEDLINE]
Calcium scoring using 64-slice MDCT, dual source CT and EBT: a comparative phantom study.	Nov 2007	Groen JM, Greuter MJ, Vliegenthart R, Suess C, Schmidt B, Zijlstra F, Oudkerk M.	Int J Cardiovasc Imaging. 2008 Jun; 24(5):547-56. Epub 2007 Nov 23.	PMID: 18038190 [PubMed – indexed for MEDLINE]
Cardiac amyloidosis imaged by dual-source computed tomography.	Aug 2008	Marwan M, Pflederer T, Ropers D, Schmid M, Wasmeier G, Söder S, Daniel WG, Achenbach S.	J Cardiovasc Comput Tomogr. 2008 Nov; 2(6):403-5. Epub 2008 Aug 15.	PMID: 19083986 [PubMed – indexed for MEDLINE]

The Publications

Title	Date	Name	Journal	Ref #
Cardiac CT and CT coronary angiography: technology and application	Jun 2008	Roberts WT, Bax JJ, Davies LC.	Heart. 2008 Jun; 94(6):781-92.	PMID: 18480352 [PubMed – indexed for MEDLINE]
Cardiac dual-source computed tomography: effect of body mass index on image quality and diagnostic accuracy.	Oct 2008	Brodoeffel H, Tsiflikas I, Burgstahler C, Reimann A, Thomas C, Schroeder S, Kopp AF, Claussen CD, Heuschmid M.	Invest Radiol. 2008 Oct; 43(10):712-8.	PMID: 18791413 [PubMed – indexed for MEDLINE]
Cardiac inflammatory myofibroblastic tumor: evaluation with dual-source CT.	Feb 2009	Hoey ET, Ganesh V, Gopalan D, Screaton NJ.	J Cardiovasc Comput Tomogr. 2009 Mar-Apr; 3(2):114-6. Epub 2009 Feb 5.	PMID: 19233757 [PubMed – in process]
Cardiac manifestation of cystic echinococcosis: comparison of dual-source cardio-computed tomography and cardiac magnetic resonance imaging and their impact on disease management.	Nov 2007	Heye T, Lichtenberg A, Junghanss T, Hosch W.	Am J Trop Med Hyg. 2007 Nov; 77(5):875-7.	PMID: 17984345 [PubMed – indexed for MEDLINE]
Characterization of coronary atherosclerosis by dual-source computed tomography and HU-based color mapping: a pilot study.	May 2008	Brodoeffel H, Reimann A, Heuschmid M, Tsiflikas I, Kopp AF, Schroeder S, Claussen CD, Clouse ME, Burgstahler C.	Eur Radiol. 2008 Nov; 18(11):2466-74. Epub 2008 May 20.	PMID: 18491107 [PubMed – indexed for MEDLINE]
Chasing the heart: new developments for cardiac CT.	Feb 2007	Flohr TG, Schoepf UJ, Ohnesorge BM.	J Thorac Imaging. 2007 Feb; 22(1):4-16.	PMID: 17325571 [PubMed – indexed for MEDLINE]
Clinical Characteristics of Patients with Obstructive Coronary Lesions in the Absence of Coronary Calcification: An Evaluation by Coronary CT Angiography.	Apr 2009	Marwan M, Ropers D, Pflederer T, Daniel WG, Achenbach S.	Heart. 2009 Apr 22. [Epub ahead of print]	PMID: 19389719 [PubMed – as supplied by publisher]
Combining Dual-Source Computed Tomography Coronary Angiography and Calcium Scoring: Added Value for the Assessment of Coronary Artery Disease.	Nov 2007	Leschka S, Scheffel H, Desbiolles L, Plass A, Gaemperli O, Stolzmann P, Genoni M, Luescher T, Marincek B, Kaufmann PA, Alkadhi H.	Heart. 2008 Sep; 94(9):1154-61. Epub 2007 Nov 21.	PMID: 18032458 [PubMed – indexed for MEDLINE]
Comparison of MRI, 64-slice MDCT and DSCT in assessing functional cardiac parameters of a moving heart phantom.	Oct 2008	Groen JM, van der Vleuten PA, Greuter MJ, Zijlstra F, Oudkerk M.	Eur Radiol. 2009 Mar; 19(3):577-83. Epub 2008 Oct 25.	PMID: 18953545 [PubMed – in process]
Comparison of Myocardial Bridging by Dual-Source CT With Conventional Coronary Angiography.	Jul 2008	Lu GM, Zhang LJ, Guo H, Huang W, Merges RD.	Circ J. 2008 Jul; 72(7):1079-85	PMID: 18577815 [PubMed – indexed for MEDLINE]
Comprehensive assessment of coronary artery stenoses: computed tomography coronary angiography versus conventional stable angina.	Aug 2008	Meijboom WB, Van Mieghem CA, van Pelt N, Weustink A, Pugliese F, Mollet NR, Boersma E, Regar E, van Geuns RJ, de Jaegere PJ, Serruys PW, Krestin GP, de Feyter PJ.	J Am Coll Cardiol. 2008 Aug 19; 52(8):636-43.	PMID: 18702967 [PubMed – indexed for MEDLINE]
Contrast enhanced ultrasound and Dual Source CT of left atrial myxoma.	May 2007	Clevert DA, Schwyer M, Johnson T, Busch S, Eifert S, Vicol C, Becker C, Reiser M.	Ultraschall Med. 2007 Dec; 28(6):622-5. Epub 2007 May 9.	PMID: 17492576 [PubMed – indexed for MEDLINE]
Contrast-enhanced coronary artery visualization by dual-source computed tomography – initial experience.	Jan 2006	Achenbach S, Ropers D, Kuettner A, Flohr T, Ohnesorge B, Bruder H, Theessen H, Karakaya M, Daniel WG, Bautz W, Kalender WA, Anders K.	Eur J Radiol. 2006 Mar; 57(3):331-5. Epub 2006 Jan 19.	PMID: 16426789 [PubMed – indexed for MEDLINE]
Coronary angiography with dual source computed tomography: initial experience.	Dec 2007	Zhang ZH, Jin ZY, Zhang SY, Lin SB, Li DJ, Kong LY, Wang YN, Song L, Wang Y, Zhao WM, Mou WB, Zhang LR, Zhu WL, Miao Q, Fang Q.	Chin Med Sci J. 2007 Dec; 22(4):205-10.	PMID: 18246666 [PubMed – indexed for MEDLINE]
Coronary artery anomalies detected by MSCT-coronary angiography in the adult.	Nov 2008	Ten Kate GJ, Weustink AC, de Feyter PJ.	Neth Heart J. 2008 Nov; 16(11):369-75.	PMID: 19065275 [PubMed – in process]
Coronary artery evaluation in Kawasaki disease by dual source multi-detector CT coronary angiography in children.	Apr 2008	Gelmez S, Saygili A, Tutar E, Cizmeli MO.	Anadolu Kardiyol Derg. 2008 Apr 10; 8(2):E9-10.	PMID: 18400624 [PubMed – indexed for MEDLINE]

The Publications

Title	Date	Name	Journal	Ref #
Coronary artery to pulmonary artery fistulae with multiple aneurysms: radiological features on dual-source 64-slice CT angiography	Sep 2008	Tomasian A, Lell M, Currier J, Rahman J, Krishnam MS.	Br J Radiol. 2008 Sep; 81(969):e218-20.	PMID: 18769007 [PubMed – indexed for MEDLINE]
Coronary CT angiography.	May 2007	Schoepf UJ, Zwerner PL, Savino G, Herzog C, Kerl JM, Costello P.	Radiology. 2007 Jul; 244(1):48-63. Epub 2007 May 10. Review.	PMID: 17495176 [PubMed – indexed for MEDLINE]
Coronary CT Angiography: Applications.	Jan 2009	Bastarrika G, Lee YS, Ruzsics B, Schoepf UJ.	Radiol Clin North Am. 2009 Jan; 47(1):91-107.	PMID: 19195536 [PubMed – indexed for MEDLINE]
Coronary fly-through or virtual angioscopy using dual-source MDCT data.	Jun 2007	van Ooijen PM, de Jonge G, Oudkerk M.	Eur Radiol. 2007 Nov; 17(11):2852-9. Epub 2007 Jun 12.	PMID: 17562048 [PubMed – indexed for MEDLINE]
Coronary plaque quantification by voxel analysis: dual-source MDCT angiography versus intravascular sonography.	Mar 2009	Brodoeffel H, Burgstahler C, Sabir A, Yam CS, Khosa F, Claussen CD, Clouse ME.	AJR Am J Roentgenol. 2009 Mar; 192(3):W84-9.	PMID: 19234244 [PubMed – indexed for MEDLINE]
Coronary revascularization treatment based on dual-source computed tomography.	May 2008	Dijkers R, Willems TP, Piers LH, de Jonge GJ, Tio RA, van der Zaag-Loonen HJ, van Ooijen PM, Zijlstra F, Oudkerk M.	Eur Radiol. 2008 Sep; 18(9):1800-8. Epub 2008 May 20.	PMID: 18491099 [PubMed – indexed for MEDLINE]
CT coronary angiography: indications, image acquisition, and interpretation.	Mar 2008	Schoepf UJ, Thilo C, Fernández MJ, Costello P.	Radiologia. 2008 Mar-Apr; 50(2):113-30. Spanish.	PMID: 18367060 [PubMed – indexed for MEDLINE]
Demonstration of clinically silent plaque rupture by dual-source computed tomography.	Jul 2007	Komatsu S, Daniel WG, Achenbach S.	Eur Heart J. 2007 Jul; 28(14):1667. Epub 2007 Feb 6.	PMID: 17284472 [PubMed – indexed for MEDLINE]
Detection of Myocardial Infarction by Dual-Source Coronary Computer Tomography Angiography Using Quantitated Myocardial Scintigraphy as the Reference Standard.	Feb 2009	Rubinshtein R, Miller TD, Williamson EE, Kirsch J, Gibbons RJ, Primak AN, McCollough CH, Araoz PA.	Heart. 2009 Feb 5. [Epub ahead of print]	PMID: 19196731 [PubMed – as supplied by publisher]
Detection of relevant coronary artery disease using dual-source computed tomography in a high probability patient series.	Dec 2008	Rixe J, Rolf A, Conradi G, Moellmann H, Nef H, Neumann T, Steiger H, Hamm CW, Dill T.	Circ J. 2009 Feb; 73(2):316-22. Epub 2008 Dec 27.	PMID: 19122307 [PubMed – indexed for MEDLINE]
Diagnostic accuracy of dual-source computed tomography in the diagnosis of coronary artery disease.	Oct 2007	Johnson TR, Nikolaou K, Busch S, Leber AW, Becker A, Wintersperger BJ, Rist C, Knez A, Reiser MF, Becker CR.	Invest Radiol. 2007 Oct; 42(10):684-91.	PMID: 17984765 [PubMed – indexed for MEDLINE]
Diagnostic accuracy of dual-source multi-slice CT-coronary angiography in patients with an intermediate pretest likelihood for coronary artery disease.	Jul 2007	Leber AW, Johnson T, Becker A, von Ziegler F, Tittus J, Nikolaou K, Reiser M, Steinbeck G, Becker CR, Knez A.	Eur Heart J. 2007 Oct; 28(19):2354-60. Epub 2007 Jul 21.	PMID: 17644815 [PubMed – indexed for MEDLINE]
Diagnostic accuracy of dual-source multi-slice CT-coronary angiography in patients with an intermediate pretest likelihood for coronary artery disease.	Jan 2008	Klepzig H.	Eur Heart J. 2008 Mar; 29(5):680. Epub 2008 Jan 8.	PMID: 18184642 [PubMed – indexed for MEDLINE]
Dose performance and image quality: Dual source CT versus single source CT in cardiac CT angiography.	Oct 2008	Wang M, Qi HT, Wang XM, Wang T, Chen JH, Liu C.	Eur J Radiol. 2008 Oct 1. [Epub ahead of print]	PMID: 18835119 [PubMed – as supplied by publisher]
Double coronary artery stent fracture with coronary artery microaneurysms.	Jan 2009	Lee KH, Lee SR, Jin GY, Lee SH, Rhee KS, Chae JK, Kim WH, Ko JK.	Int Heart J. 2009 Jan; 50(1):127-32.	PMID: 19246853 [PubMed – indexed for MEDLINE]
Dual Source CT: cardio-pulmonary applications.	Mar 2007	Hamoir X, Salovic D, Bouziane T, Kirsch J.	JBR-BTR. 2007 Mar-Apr; 90(2):77-9.	PMID: 17555062 [PubMed – indexed for MEDLINE]
Dual-source cardiac CT imaging with improved temporal resolution: Impact on image quality and analysis of left ventricular function.	Apr 2007	Rist C, Johnson TR, Becker A, Leber AW, Huber A, Busch S, Becker CR, Reiser MF, Nikolaou K.	Radiologe. 2007 Apr; 47(4):287-90, 292-4. German.	PMID: 17285272 [PubMed – indexed for MEDLINE]

The Publications

Title	Date	Name	Journal	Ref #
Dual-source computed tomography coronary angiography: influence of obesity, calcium load, and heart rate on diagnostic accuracy.	Feb 2008	Alkadhi H, Scheffel H, Desbiolles L, Gaemperli O, Stolzmann P, Plass A, Goerres GW, Luescher TF, Genoni M, Marincek B, Kaufmann PA, Leschka S.	Eur Heart J. 2008 Mar; 29(6): 766-76. Epub 2008 Feb 21.	PMID: 18292596 [PubMed – indexed for MEDLINE]
Dual-source computed tomography for assessing cardiac function: a phantom study.	Jul 2007	Mahnken AH, Bruder H, Suess C, Mühlenbruch G, Bruners P, Hohl C, Guenther RW, Wildberger JE.	Invest Radiol. 2007 Jul; 42(7):491-8.	PMID: 17568271 [PubMed – indexed for MEDLINE]
Dual-source computed tomography: advances of improved temporal resolution in coronary plaque imaging.	Mar 2007	Reimann AJ, Rinck D, Birinci-Aydogan A, Scheuering M, Burgstahler C, Schroeder S, Brodoefel H, Tsiflikas I, Herberts T, Flohr T, Claussen CD, Kopp AF, Heuschmid M.	Invest Radiol. 2007 Mar; 42(3):196-203.	PMID: 17287650 [PubMed – indexed for MEDLINE]
Dual-source coronary computed tomography angiography for detecting in-stent restenosis.	Sep 2007	Pugliese F, Weustink AC, Van Mieghem C, Alberghina F, Otsuka M, Meijboom WB, Van Pelt N, Mollet NR, Cademartiri F, Krestin GP, Hunink MG, de Feyter PJ.	Heart. 2008 Jul; 94(7):848-54. Epub 2007 Sep 19.	PMID: 17881474 [PubMed – indexed for MEDLINE]
Dual-source coronary computed tomography angiography in patients with atrial fibrillation: initial experience.	Jun 2008	Wolak A, Gutstein A, Cheng VY, Suzuki Y, Thomson LE, Friedman J, Dey D, Hayes SW, Slomka PJ, Germano G, Berman DS.	J Cardiovasc Comput Tomogr. 2008 May-Jun; 2(3):172-80. Epub 2008 Mar 22.	PMID: 19083942 [PubMed – in process]
Dual-source CT cardiac imaging: initial experience.	Mai 2006	Johnson TR, Nikolaou K, Wintersperger BJ, Leber AW, von Ziegler F, Rist C, Buhmann S, Knez A, Reiser MF, Becker CR.	Eur Radiol. 2006 Jul; 16(7):1409-15. Epub 2006 May 13.	PMID: 16770652 [PubMed – indexed for MEDLINE]
Dual-source CT coronary angiogram in heart transplant recipients in comparison with dobutamine stress echocardiography for detection of cardiac allograft vasculopathy.	Feb 2009	Mastrobuoni S, Bastarrika G, Ubilla M, Castaño S, Azcarate P, Barrero EA, Castellano JM, Herreros J, Rabago G.	Transplantation. 2009 Feb 27; 87(4):587-90.	PMID: 19307798 [PubMed – in process]
Dual-source CT coronary angiography.	Jul 2007	Bastarrika G, Arraiza M, Pueyo J.	Rev Med Univ Navarra. 2007 Jul-Sep; 51(3):4-8. Review. Spanish.	PMID: 18183779 [PubMed – indexed for MEDLINE]
Dual-source CT coronary angiography: image quality and optimal reconstruction interval.	Mar 2009	Bastarrika G, Arraiza M, Arias J, Broncano J, Zudaire B, Pueyo JC, García Del Barrio L.	Radiologia. 2009 Mar 10 [Epub ahead of print]	PMID: 19282012 [PubMed – as supplied by publisher]
Dual-source CT coronary angiography: image quality, mean heart rate, and heart rate variability.	Sep 2007	Matt D, Scheffel H, Leschka S, Flohr TG, Marincek B, Kaufmann PA, Alkadhi H.	AJR Am J Roentgenol. 2007 Sep; 189(3):567-73.	PMID: 17715102 [PubMed – indexed for MEDLINE]
Dual-source CT coronary angiography in patients with atrial fibrillation: Comparison with single source CT	Nov 2008	Wang Y, Zhang Z, Kong L, Song L, Merges RD, Chen J, Jin Z.	Eur J Radiol. 2008 Dec; 68(3):434-41. Epub 2008 Nov 6.	PMID: 18993003 [PubMed – in process]
Dual-source CT coronary imaging in heart transplant recipients: image quality and optimal reconstruction interval.	Apr 2008	Bastarrika G, De Cecco CN, Arraiza M, Ubilla M, Mastrobuoni S, Pueyo JC, Rábago G.	Eur Radiol. 2008 Sep; 18(9):1791-9. Epub 2008 Apr 17.	PMID: 18418604 [PubMed – indexed for MEDLINE]
Dual-Source CT: Effect of Heart Rate, Heart Rate Variability, and Calcification on Image Quality and Diagnostic Accuracy.	Mar 2008	Brodoefel H, Burgstahler C, Tsiflikas I, Reimann A, Schroeder S, Claussen CD.	Radiology. 2008 May; 247(2):346-55. Epub 2008 Mar 27.	PMID: 18372455 [PubMed - indexed for MEDLINE]
Dual-source CT for cardiac imaging.	Jan 2009	Miller JC, Abbara S, Mamuya WS, Thrall JH, Uppot RN.	J Am Coll Radiol. 2009 Jan; 6(1):65-8.	PMID: 19111275 [PubMed – indexed for MEDLINE]
Dual-source CT for visualization of the coronary arteries in heart transplant patients with high heart rates	Aug 2008	Bastarrika G, De Cecco CN, Arraiza M, Mastrobuoni S, Pueyo JC, Ubilla M, Rábago G.	AJR Am J Roentgenol. 2008 Aug; 191(2):448-54.	PMID: 18647916 [PubMed – indexed for MEDLINE]
Dual-source CT with improved temporal resolution in assessment of left ventricular function: a pilot study.	Nov 2007	Brodoefel H, Kramer U, Reimann A, Burgstahler C, Schroeder S, Kopp A, Heuschmid M.	AJR Am J Roentgenol. 2007 Nov; 189(5):1064-70.	PMID: 17954641 [PubMed – indexed for MEDLINE]
Dual-source versus single-source cardiac CT angiography: comparison of diagnostic image quality.	Apr 2009	Donnino R, Jacobs JE, Doshi JV, Hecht EM, Kim DC, Babb JS, Srichai MB.	AJR Am J Roentgenol. 2009 Apr; 192(4):1051-6.	PMID: 19304713 [PubMed – in process]

The Publications

Title	Date	Name	Journal	Ref #
Effectiveness of dual-source CT coronary angiography for the evaluation of coronary artery disease in patients with atrial fibrillation: initial experience.	Dec 2007	Oncel D, Oncel G, Tastan A.	Radiology. 2007 Dec; 245(3):703-11.	PMID: 18024451 [PubMed – indexed for MEDLINE]
Esophagus imaging for radiofrequency ablation of atrial fibrillation using a dual-source computed tomography system: preliminary observations.	Sep 2007	Kobza R, Auf der Maur C, Kurtz C, Hoffmann A, Allgayer B, Erne P.	J Interv Card Electrophysiol. 2007 Sep; 19(3):167-70. Epub 2007 Sep 6.	PMID: 17823860 [PubMed – indexed for MEDLINE]
Evaluation of a coronary-cameral fistula: benefits of coronary dual-source MDCT angiography in children.	Jun 2008	Lerner CB, Frush DP, Boll DT.	Pediatr Radiol. 2008 Aug; 38(8):874-8. Epub 2008 Jun 4.	PMID: 18523763 [PubMed – indexed for MEDLINE]
Evaluation of biological aortic valve prostheses by dual source computer tomography and anatomic measurements for potential transapical valve-in-valve procedure.	Jan 2008	Grünenfelder J, Plass A, Alkadhi H, Genoni M.	Interact Cardiovasc Thorac Surg. 2008 Apr; 7(2):195-9; discussion 199-200. Epub 2008 Jan 24.	PMID: 18218653 [PubMed – in process]
Evaluation of coronary stent patency and in-stent restenosis with dual-source CT coronary angiography without heart rate control.	Jul 2008	Oncel D, Oncel G, Tastan A, Tamci B.	AJR Am J Roentgenol. 2008 Jul; 191(1):56-63.	PMID: 18562725 [PubMed – indexed for MEDLINE]
Evaluation of coronary stents and stenoses at different heart rates with dual source spiral CT (DSCT).	Jul 2007	Lell MM, Panknin C, Saleh R, Sayre JW, Schmidt B, Dinh H, Ruehm SG.	Invest Radiol. 2007 Jul; 42(7):536-41.	PMID: 17568277 [PubMed – indexed for MEDLINE]
Evaluation of global left ventricular function assessment by dual-source computed tomography compared with MRI.	Aug 2008	van der Vleuten PA, de Jonge GJ, Lubbers DD, Tio RA, Willems TP, Oudkerk M, Zijlstra F.	Eur Radiol. 2009 Feb; 19(2):271-7. Epub 2008 Aug 15.	PMID: 18704432 [PubMed – in process]
Evaluation of left atrial myxoma by dual-source CT.	May 2007	Johnson TR, Clevert DA, Busch S, Schweyer M, Nikolaou K, Reiser MF, Becker CR.	Cardiovasc Intervent Radiol. 2007 Sep-Oct; 30(5):1085-6. Epub 2007 May 17. No abstract available.	PMID: 17508230 [PubMed – indexed for MEDLINE]
Functional cardiac CT imaging: a new contrast application strategy for a better visualization of the cardiac chambers.	Nov 2008	Wuest W, Zunker C, Anders K, Ropers D, Achenbach S, Bautz W, Kuettner A.	Eur J Radiol. 2008 Dec; 68(3):392-7. Epub 2008 Nov 12.	PMID: 19008063 [PubMed – in process]
Global cardiac evaluation without heart rate control: preliminary experience with dual source CT (DSCT).	Dec 2008	De Cecco CN, Bastarrika G, Pueyo J, Anselmi A, Rengo M, Maurizi Enrici M, David V.	Minerva Cardioangiol. 2008 Dec; 56(6):587-97.	PMID: 19092734 [PubMed – indexed for MEDLINE]
Global left-ventricular function assessment using dual-source multidetector CT: effect of improved temporal resolution on ventricular volume measurement.	May 2008	Puesken M, Fischbach R, Wenker M, Seifarth H, Maintz D, Heindel W, Juergens KU.	Eur Radiol. 2008 Oct; 18(10):2087-94. Epub 2008 May 1.	PMID: 18449547 [PubMed – indexed for MEDLINE]
Image quality and reconstruction intervals of dual-source CT coronary angiography: recommendations for ECG-pulsing windowing.	Aug 2007	Leschka S, Scheffel H, Desbiolles L, Plass A, Gaemperli O, Valenta I, Husmann L, Flohr TG, Genoni M, Marincek B, Kaufmann PA, Alkadhi H.	Invest Radiol. 2007 Aug; 42(8):543-9.	PMID: 17620936 [PubMed – indexed for MEDLINE]
Image quality on dual-source computed-tomographic coronary angiography.	Apr 2008	Rixe J, Rolf A, Conradi G, Elsaesser A, Moellmann H, Nef HM, Bachmann G, Hamm CW, Dill T.	Eur Radiol. 2008 Sep;18(9):1857-62. Epub 2008 Apr 17	PMID: 18418605 [PubMed – as supplied by publisher]
Imaging of the Coronary Venous System: Validation of Three-Dimensional Rotational Venous Angiography Against Dual-Source Computed Tomography.	May 2008	Knackstedt C, Mühlenbruch G, Mischke K, Bruners P, Schimpf T, Frechen D, Schummers G, Mahnken AH, Günther RW, Kelm M, Schauerte P.	Cardiovasc Intervent Radiol. 2008 Nov-Dec; 31(6):1150-8. Epub 2008 May 1.	PMID: 18449597 [PubMed – indexed for MEDLINE]
Imaging of the coronary venous system: validation of three-dimensional rotational venous angiography against dual-source computed tomography.	May 2008	Knackstedt C, Mühlenbruch G, Mischke K, Bruners P, Schimpf T, Frechen D, Schummers G, Mahnken AH, Günther RW, Kelm M, Schauerte P.	Cardiovasc Intervent Radiol. 2008 Nov-Dec; 31(6):1150-8. Epub 2008 May 1.	PMID: 18449597 [PubMed – indexed for MEDLINE]

The Publications

Title	Date	Name	Journal	Ref #
Imaging of the heart with computed tomography.	Mar 2008	Flohr TG, Ohnesorge BM.	Basic Res Cardiol. 2008 Mar; 103(2):161-73.	PMID: 18324372 [PubMed – indexed for MEDLINE]
Impact of right ventricular contrast attenuation on the accuracy of right ventricular function analysis at cardiac multi-detector-row CT.	Jan 2009	Aho MR, Gebregziabher M, Schoepf UJ, Suranyi P, Lee H, Gregg D, Costello P, Zwerner PL.	Eur J Radiol. 2009 Jan 21. [Epub ahead of print]	PMID: 19167178 [PubMed – as supplied by publisher]
Improved noninvasive coronary angiography in morbidly obese patients with dual-source computed tomography.	Dec 2008	Chinnaiyan KM, McCullough PA, Flohr TG, Wegner JH, Raff GL.	J Cardiovasc Comput Tomogr. 2009 Jan-Feb; 3(1):35-42. Epub 2008 Dec.	PMID: 19136325 [PubMed – indexed for MEDLINE]
Influence of calcifications on diagnostic accuracy of coronary CT angiography using prospective ECG triggering.	Dec 2008	Stolzmann P, Scheffel H, Leschka S, Plass A, Baumüller S, Marincek B, Alkadhi H.	AJR Am J Roentgenol. 2008 Dec; 191(6):1684-9.	PMID: 19020236 [PubMed – indexed for MEDLINE]
Influence of heart rate on the diagnostic accuracy of dual-source computed tomography coronary angiography.	Dec 2007	Ropers U, Ropers D, Pflederer T, Anders K, Kuettner A, Stilianakis NI, Komatsu S, Kalender W, Bautz W, Daniel WG, Achenbach S.	J Am Coll Cardiol. 2007 Dec 18; 50(25):2393-8.	PMID: 18154964 [PubMed – indexed for MEDLINE]
Is dual-source CT coronary angiography ready for the real world?	Mar 2008	Cademartiri F, Maffei E, Mollet NR.	Eur Heart J. 2008 Mar; 29(6):701-3.	PMID: 18343798 [PubMed – indexed for MEDLINE]
Late enhancement on cardiac computed tomography in a patient with cardiac sarcoidosis.	Jun 2008	Muth G, Daniel WG, Achenbach S.	J Cardiovasc Comput Tomogr. 2008 Jul-Aug; 2(4):272-3. Epub 2008 Jun 4.	PMID: 19083960 [PubMed – indexed for MEDLINE]
Left Ventricular and Left Atrial Dimensions and Volumes: Comparison Between Dual-Source CT and Echocardiography.	May 2008	Stolzmann P, Scheffel H, Trindade PT, Plass AR, Husmann L, Leschka S, Genoni M, Marincek B, Kaufmann PA, Alkadhi H.	Invest Radiol. 2008 May; 43(5):284-289.	PMID: 18424948 [PubMed – indexed for MEDLINE]
Low adiponectin levels are an independent predictor of mixed and non-calcified coronary atherosclerotic plaques.	Mar 2009	Broedl UC, Leberher C, Lehrke M, Stark R, Greif M, Becker A, von Ziegler F, Tittus J, Reiser M, Becker C, Göke B, Parhofer KG, Leber AW.	PLoS ONE. 2009; 4(3):e4733. Epub 2009 Mar 6.	PMID: 19266101 [PubMed – in process]
Measurement of temporal resolution in dual source CT.	Feb 2008	McCullough CH, Schmidt B, Yu L, Primak A, Ulzheimer S, Bruder H, Flohr TG.	Med Phys. 2008 Feb; 35(2):764-8.	PMID: 18383698 [PubMed – indexed for MEDLINE]
Multislice computed tomography coronary angiography: clinical applications.	Oct 2007	Cademartiri F, Aldrovandi A, Palumbo A, Maffei E, Fusaro M, Tresoldi S, Messalli G, Rossi A, Rengo M, Pugliese F, Salamoussas BV, Reverberi C, Meijboom WB, Mollet NR, Ardissino D, De Feyter PJ.	Minerva Cardioangiol. 2007 Oct; 55(5):647-58.	PMID: 17912168 [PubMed – indexed for MEDLINE]
Multislice computed tomography in infective endocarditis: comparison with transesophageal echocardiography and intraoperative findings.	Feb 2009	Feuchtner GM, Stolzmann P, Dichtl W, Schertler T, Bonatti J, Scheffel H, Mueller S, Plass A, Mueller L, Bartel T, Wolf F, Alkadhi H.	J Am Coll Cardiol. 2009 Feb 3; 53(5):436-44.	PMID: 19179202 [PubMed – indexed for MEDLINE]
Multislice computer tomography for detection of coronary artery disease.	Dec 2006	Ropers D.	J Interv Cardiol. 2006 Dec; 19(6):574-82. Review.	PMID: 17107375 [PubMed – indexed for MEDLINE]
Myocardial bridge in congenitally corrected transposition of great arteries.	Aug 2008	Lee SR, Schwartz RS, Jin GY, Ko JK.	J Cardiovasc Comput Tomogr. 2008 Sep-Oct; 2(5):339-40. Epub 2008 Aug 13.	PMID: 19083974 [PubMed – indexed for MEDLINE]
Myocardial bridging: evaluation using single- and dual-source multidetector cardiac computed tomographic angiography.	Apr 2008	Jacobs JE, Bod J, Kim DC, Hecht EM, Srichai MB.	J Comput Assist Tomogr. 2008 Mar-Apr; 32(2):242-6.	PMID: 18379310 [PubMed – indexed for MEDLINE]
New applications for noninvasive cardiac imaging: dual-source computed tomography.	Dec 2007	Rist C, Johnson TR, Becker CR, Reiser MF, Nikolaou K.	Eur Radiol. 2007 Dec; 17 Suppl 6:F16-25.	PMID: 18376453 [PubMed – indexed for MEDLINE]

The Publications

Title	Date	Name	Journal	Ref #
New-onset heart failure caused by spontaneous papillary muscle rupture: diagnosis with dual-source computed tomographic coronary angiography.	May 2008	Lee H, Ruzsics B, Schoepf UJ, Stewart EA, Costello P, Glenn JL, Ikonomidis JS.	J Thorac Cardiovasc Surg. 2009 Jan; 137(1):e19-21. Epub 2008 May 7.	PMID: 19154868 [PubMed – indexed for MEDLINE]
Non-compactation visualization using ECG-gated dual-source CT.	Mar 2007	Kirsch J, Williamson EE, Araoz PA.	Int J Cardiol. 2007 May 31; 118(2):e46-7. Epub 2007 Mar 28.	PMID: 17395285 [PubMed – indexed for MEDLINE]
Noninvasive assessment of coronary in-stent restenosis by dual-source computed tomography.	Jan 2009	Pfleiderer T, Marwan M, Renz A, Bachmann S, Ropers D, Kuettner A, Anders K, Bamberg F, Daniel WG, Achenbach S.	Am J Cardiol. 2009 Mar 15; 103(6):812-7. Epub 2009 Jan 24.	PMID: 19270861 [PubMed – in process]
Noninvasive Coronary Angiography Using Dual-Source Computed Tomography in Patients With Atrial Fibrillation.	Jan 2009	Rist C, Johnson TR, Müller-Starck J, Arnoldi E, Saam T, Becker A, Leber AW, Wintersperger BJ, Becker CR, Reiser MF, Nikolaou K.	Invest Radiol. 2009 Jan 15. [Epub ahead of print]	PMID: 19151607 [PubMed – as supplied by publisher]
Noninvasive diagnosis of bronchial artery aneurysm using dual-source computed tomography angiography.	Apr 2008	Zhang LJ, Yang GF, Lu GM.	Acta Radiol. 2008 Apr; 49(3):291-4.	PMID: 18365817 [PubMed – indexed for MEDLINE]
Novel technique for addressing streak artifact in gated dual-source MDCT angiography utilizing ECG-editing.	May 2008	Meyer LT, Boll DT	Eur Radiol. 2008 Nov; 18(11):2446-8. Epub 2008 May 20.	PMID: 18491110 [PubMed – indexed for MEDLINE]
Optimal systolic and diastolic reconstruction windows for coronary CT angiography using dual-source CT.	Dec 2007	Seifarth H, Wienbeck S, Püsken M, Juergens KU, Mainz D, Vahlhaus C, Heindel W, Fischbach R.	AJR Am J Roentgenol. 2007 Dec; 189(6):1317-23.	PMID: 18029865 [PubMed – indexed for MEDLINE]
Pericardial Adipose Tissue Determined by Dual Source CT Is a Risk Factor for Coronary Atherosclerosis.	Feb 2009	Greif M, Becker A, von Ziegler F, Lebherz C, Lehrke M, Broedl U, Tittus J, Parhofer K, Becker C, Reiser M, Knez A, Leber AW.	Arterioscler Thromb Vasc Biol. 2009 May; 29(5):781-6. Epub 2009 Feb 19.	PMID: 19229071 [PubMed – in process]
Pre- and postsurgical diagnostics with dual-source computed tomography in cardiac surgery.	Apr 2007	Nikolaou K, Saam T, Rist C, Johnson T, Vogt F, Oberhoffer M, Reichart B, Reiser MF, Becker CR.	Radiologe. 2007 Apr; 47(4):310-8. German.	PMID: 17318469 [PubMed – indexed for MEDLINE]
Prevalence and morphology of coronary artery ectasia with dual-source CT coronary angiography.	Jul 2008	Leschka S, Stolzmann P, Scheffel H, Wildermuth S, Plass A, Genoni M, Marincek B, Alkadhi H.	Eur Radiol. 2008 Dec; 18(12):2776-84. Epub 2008 Jul 19	PMID: 18641995 [PubMed – indexed for MEDLINE]
Prospective ECG-triggered sequential scan protocol for coronary dual-source CT angiography: initial experience.	Jan 2009	Hein F, Meyer T, Hadamitzky M, Bischoff B, Will A, Hendrich E, Martinoff S, Schömig A, Hausleiter J.	Int J Cardiovasc Imaging. 2009 Jan 28. [Epub ahead of print]	PMID: 19190915 [PubMed – as supplied by publisher]
Quantification of coronary artery stenoses: comparison of 64-slice and dual source CT angiography with cardiac catheterization.	Apr 2007	Busch S, Nikolaou K, Johnson T, Rist C, Knez A, Reiser M, Becker C.	Radiologe. 2007 Apr; 47(4):295-300. German.	PMID: 17287946 [PubMed – indexed for MEDLINE]
Quantification of left ventricular function and mass in cardiac Dual-Source CT (DSCT) exams: comparison of manual and semiautomatic segmentation algorithms.	Feb 2008	Bastarrica G, Arraiza M, Pueyo JC, Herraiz MJ, Zudaire B, Villanueva A.	Eur Radiol. 2008 May;18(5):939-46. Epub 2008 Feb 22.	PMID: 18292999 [PubMed – as supplied by publisher]
Quantification of left ventricular function and mass in dual-source CT (DSCT).	Mar 2009	Arraiza M, Bastarrica G, Zudaire B, Pueyo J, Villanueva A.	Radiologia. 2009 Mar-Apr; 51(2):148-55. Epub 2009 Mar 14.	PMID: 19286237 [PubMed – in process]
Quantification of left ventricular function and mass in heart transplant recipients using dual-source CT and MRI: initial clinical experience.	May 2008	Bastarrica G, Arraiza M, De Cecco CN, Mastrobuoni S, Ubilla M, Rábago G.	Eur Radiol. 2008 Sep;18(9):1784-90. Epub 2008 May 20.	PMID: 18491100 [PubMed – indexed for MEDLINE]
Quantitative assessment of left ventricular function with dual-source CT in comparison to cardiac magnetic resonance imaging: initial findings.	Oct 2007	Busch S, Johnson TR, Wintersperger BJ, Minaifar N, Bhargava A, Rist C, Reiser MF, Becker C, Nikolaou K.	Eur Radiol. 2008 Mar; 18(3):570-5. Epub 2007 Oct 2.	PMID: 17909817 [PubMed – indexed for MEDLINE]
Quantitative parameters to compare image quality of non-invasive coronary angiography with 16-slice, 64-slice and dual-source computed tomography.	Oct 2008	Burgstahler C, Reimann A, Brodoefel H, Daferner U, Herberts T, Tsiflikas I, Thomas C, Drosch T, Schroeder S, Heuschmid M.	Eur Radiol. 2009 Mar; 19(3):584-90. Epub 2008 Oct 25.	PMID: 18953544 [PubMed – in process]

The Publications

Title	Date	Name	Journal	Ref #
Randomized comparison of 64-slice Single and Dual-Source Computed Tomography Coronary Angiography for the Detection of Coronary Artery Disease.	Mar 2008	Achenbach S, Ropers U, Kuettner A, Anders K, Pflederer T, Komatsu S, Bautz W.	JACC Cardiovasc Imaging. 2008 Mar; 1(2):177-86.	PMID: 19356426 [PubMed – indexed for MEDLINE]
Reference values for quantitative left ventricular and left atrial measurements in cardiac computed tomography.	Aug 2008	Stolzmann P, Scheffel H, Leschka S, Schertler T, Frauenfelder T, Kaufmann PA, Marincek B, Alkadhi H.	Eur Radiol. 2008 Aug; 18(8):1625-34. Epub 2008 Apr 30.	PMID: 18446346 [PubMed – indexed for MEDLINE]
Reliable high-speed coronary computed tomography in symptomatic patients.	Aug 2007	Weustink AC, Meijboom WB, Mollet NR, Otsuka M, Pugliese F, van Mieghem C, Malago R, van Pelt N, Dijkshoorn ML, Cademartiri F, Krestin GP, de Feyter PJ.	J Am Coll Cardiol. 2007 Aug 21; 50(8):786-94. Epub 2007 Aug 6.	PMID: 17707184 [PubMed – indexed for MEDLINE]
Remodelling of the aortic root in severe tricuspid aortic stenosis: implications for transcatheter aortic valve implantation.	Feb 2009	Stolzmann P, Knight J, Desbiolles L, Maier W, Scheffel H, Plass A, Kurtcuoglu V, Leschka S, Poulikakos D, Marincek B, Alkadhi H.	Eur Radiol. 2009 Feb 4. [Epub ahead of print]	PMID: 19190915 [PubMed – as supplied by publisher]
Replacing diagnostic catheterization with coronary CT angiography: the final frontier.	Sep 2007	Schoepf UJ, et al.	European Heart Journal Advance Access published September 3, 2007	PMID: 17768171 [PubMed – indexed for MEDLINE]
Screening for coronary artery disease in respiratory patients: comparison of single- and dual-source CT in patients with a heart rate above 70 bpm.	May 2008	Pansini V, Remy-Jardin M, Tacelli N, Faivre JB, Flohr T, Deken V, Duhamel A, Remy J.	Eur Radiol. 2008 May 8. [Epub ahead of print]	PMID: 18463871 [PubMed – indexed for MEDLINE]
Septal delineation using a 20% diluted contrast chaser bolus in coronary CT angiography: a comparison of 64-slice and dual source CT.	Mar 2009	Wüst W, Zunker C, May M, Anders K, Ropers D, Achenbach S, Uder M, Kuettner A.	Rofo. 2009 Apr; 181(4):324-31. Epub 2009 Mar 16.	PMID: 19291601 [PubMed – indexed for MEDLINE]
Spontaneous left main coronary artery dissection complicated by pseudoaneurysm formation in pregnancy: role of CT coronary angiography.	Apr 2009	Rahman S, Abdul-Waheed M, Helmy T, Huffman LC, Koshal V, Guitron J, Merrill WH, Lewis DF, Dunlap S, Shizukuda Y, Weintraub NF, Meyer C, Cilingiroglu M.	J Cardiothorac Surg. 2009 Apr 1; 4:15.	PMID: 19338659 [PubMed – in process]
Subvalvular aortic stenosis: comprehensive cardiac evaluation with dual-source computed tomography.	Jul 2008	Stolzmann P, Scheffel H, Bettex D, Karlo C, Frauenfelder T, Prêtre R, Marincek B, Alkadhi H.	J Thorac Cardiovasc Surg. 2007 Jul; 134(1):240-1, 241.e1.	PMID: 17599520 [PubMed – indexed for MEDLINE]
The impact of warmed intravenous contrast material on the bolus geometry of coronary CT angiography applications.	Mar 2009	Hazirolan T, Turkbey B, Akpınar E, Canyigit M, Karcaaltincaba M, Peynircioglu B, Balkanci ZD, Akata D, Balkanci F.	Korean J Radiol. 2009 Mar-Apr; 10(2):150-5. Epub 2009 Mar 3.	PMID: 19270861 [PubMed – in process]
Threshold adjusted calcium scoring using CT is less susceptible to cardiac motion and more accurate.	Feb 2009	Groen JM, Dijkstra H, Greuter MJ, Oudkerk M.	Med Phys. 2009 Feb; 36(2):438-46.	PMID: 19291982 [PubMed – indexed for MEDLINE]
Usefulness of noninvasive cardiac imaging using dual-source computed tomography in an unselected population with high prevalence of coronary artery disease.	Jun 2007	Heuschmid M, Burgstahler C, Reimann A, Brodoefel H, Mysal I, Haeberle E, Tsiflikas I, Claussen CD, Kopp AF, Schroeder S.	Am J Cardiol. 2007 Aug 15; 100(4):587-92. Epub 2007 Jun 29.	PMID: 17697811 [PubMed – indexed for MEDLINE]
Visualization of anomalous coronary arteries on dual-source computed tomography.	Jul 2008	de Jonge GJ, van Ooijen PM, Piers LH, Dijkers R, Tio RA, Willems TP, van den Heuvel AF, Zijlstra F, Oudkerk M.	Eur Radiol. 2008 Nov; 18(11):2425-32. Epub 2008 Jul 24.	PMID: 18651148 [PubMed – indexed for MEDLINE]
Visualization of entry and re-entry tears in a complex type A aortic dissection by 64-slice dual-source computer tomography.	Aug 2008	Graser A, Johnson TR, Chandarana H, Macari M.	Eur Radiol. 2009 Jan; 19(1):13-23. Epub 2008 Aug 2.	PMID: 18677487 [PubMed – indexed for MEDLINE]
Topic: Dose				
Adequate image quality with reduced radiation dose in prospectively triggered coronary CTA compared with retrospective techniques.	May 2009	Arnoldi E, Johnson TR, Rist C, Wintersperger BJ, Sommer WH, Becker A, Becker CR, Reiser MF, Nikolaou K.	Eur Radiol. 2009 May 5. [Epub ahead of print]	PMID: 19415293 [PubMed – as supplied by publisher]

The Publications

Title	Date	Name	Journal	Ref #
Algorithm for radiation dose reduction with helical dual source coronary computed tomography angiography in clinical practice.	Sep 2008	Gutstein A, Dey D, Cheng V, Wolak A, Gransar H, Suzuki Y, Friedman J, Thomson LE, Hayes S, Pimentel R, Paz W, Slomka P, Le Meunier L, Germano G, Berman DS.	J Cardiovasc Comput Tomogr. 2008 Sep-Oct; 2(5):311-22. Epub 2008 Jul 31.	PMID: 19083968 [PubMed – in process]
Cardiovascular dual source computed tomography for aortic coarctation in a neonate: one-second scan with ultra-low radiation dose.	Nov 2008	Bastarrika G, De Cecco CN, Bastero P, Arraiza M, Barba J, Anselmi A, Alzina V.	Ann Thorac Surg. 2008 Nov; 86(5):e4.	PMID: 19049721 [PubMed – indexed for MEDLINE]
Dose performance of a 64-channel dual-source CT scanner.	Apr 2007	McCullough CH, Primak AN, Saba O, Bruder H, Stierstorfer K, Raupach R, Suess C, Schmidt B, Ohnesorge BM, Flohr TG.	Radiology. 2007 Jun; 243(3):775-84. Epub 2007 Apr 19.	PMID: 17446525 [PubMed – indexed for MEDLINE]
Dual-source cardiac computed tomography: image quality and dose considerations.	Feb 2008	Achenbach S, Anders K, Kalender WA.	Eur Radiol. 2008 Jun; 18(6):1188-98. Epub 2008 Feb 26.	PMID: 18299838 [PubMed – indexed for MEDLINE]
Dual-source computed tomography: Estimation of radiation exposure of ECG-gated and ECG-triggered coronary angiography.	Dec 2008	Ketelsen D, Thomas C, Werner M, Luetkhoff MH, Buchgeister M, Tsiflikas I, Reimann A, Burgstahler C, Brodoefel H, Kopp AF, Claussen CD, Heuschmid M.	Eur J Radiol. 2008 Dec 17. [Epub ahead of print]	PMID: 19097836 [PubMed – as supplied by publisher]
Dual-source CT in step-and-shoot mode: noninvasive coronary angiography with low radiation dose.	Oct 2008	Stolzmann P, Leschka S, Scheffel H, Krauss T, Desbiolles L, Plass A, Genoni M, Flohr TG, Wildermuth S, Marincek B, Alkadhi H.	Radiology. 2008 Oct; 249(1):71-80.	PMID: 18796669 [PubMed – indexed for MEDLINE]
Effect of dual-source cardiac computed tomography on patient radiation dose in a clinical setting: comparison to single-source imaging.	Oct 2008	Halliburton SS, Sola S, Kuzmiak SA, Obuchowski NA, Desai M, Flamm SD, Schoenhagen P.	J Cardiovasc Comput Tomogr. 2008 Nov; 2(6):392-400. Epub 2008 Oct 9.	PMID: 19083984 [PubMed – indexed for MEDLINE]
Estimated Radiation Dose Associated With Cardiac CT Angiography.	Feb 2009	Hausleiter J, Meyer T, Hermann F, Hadamitzky M, Krebs M, Gerber TC, McCullough C, Martinoff S, Kastrati A, Schömig A, Achenbach S.	JAMA. 2009 Feb 4; 301(5):500-7.	PMID: 19190314 [PubMed – indexed for MEDLINE]
Evaluation of image quality and radiation dose of thoracic and coronary dual-source CT in 110 infants with congenital heart disease.	Mar 2009	Saad MB, Rohnean A, Sigal-Cinqualbre A, Adler G, Paul JF.	Pediatr Radiol. 2009 Mar 25. [Epub ahead of print]	PMID: 19319514 [PubMed – as supplied by publisher]
Image quality in a low radiation exposure protocol for retrospectively ECG-gated coronary CT angiography.	Apr 2009	Pflederer T, Rudofsky L, Ropers D, Bachmann S, Marwan M, Daniel WG, Achenbach S.	AJR Am J Roentgenol. 2009 Apr; 192(4):1045-50.	PMID: 19304712 [PubMed – in process]
Low-Dose CT Coronary Angiography in the Step-and-Shoot Mode: Diagnostic Performance.	Jun 2008	Scheffel H, Alkadhi H, Leschka S, Plass A, Desbiolles L, Guber I, Krauss T, Gruenenfelder J, Genoni M, Luescher TF, Marincek B, Stolzmann P.	Heart. 2008 Sep; 94(9):1132-7. Epub 2008 Jun 2.	PMID: 18519548 [PubMed – indexed for MEDLINE]
Low kilovoltage cardiac dual-source CT: attenuation, noise, and radiation dose.	Apr 2008	Leschka S, Stolzmann P, Schmid FT, Scheffel H, Stinn B, Marincek B, Alkadhi H, Wildermuth S.	Eur Radiol. 2008 Sep; 18(9):1809-17. Epub 2008 Apr 8.	PMID: 18029988 [PubMed – indexed for MEDLINE]
Low kVp imaging for dose reduction in dual-source cardiac CT.	Mar 2009	Luaces M, Akers S, Litt H.	Int J Cardiovasc Imaging. 2009 Mar 5. [Epub ahead of print]	PMID: 19263238 [PubMed – as supplied by publisher]
Optimal electrocardiographic pulsing windows and heart rate: effect on image quality and radiation exposure at dual-source coronary CT angiography.	Sep 2008	Weustink AC, Mollet NR, Pugliese F, Meijboom WB, Nieman K, Heijenbrok-Kal MH, Flohr TG, Neeffjes LA, Cademartiri F, de Feyter PJ, Krestin GP.	Radiology. 2008 Sep; 248(3):792-8	PMID: 18710975 [PubMed – indexed for MEDLINE]
Optimizing radiation dose and image quality.	Dec 2007	Catalano C, Francone M, Ascarelli A, Mangia M, Iacucci I, Passariello R.	Eur Radiol. 2007 Dec; 17 Suppl 6:F26-32.	PMID: 18376454 [PubMed – indexed for MEDLINE]
Radiation dose and image quality of prospective triggering with dual-source cardiac computed tomography.	Mar 2009	Blankstein R, Shah A, Pale R, Abbara S, Bezerra H, Bolen M, Mamuya WS, Hoffmann U, Brady TJ, Cury RC.	Am J Cardiol. 2009 Apr 15; 103(8):1168-73. Epub 2009 Mar 4.	PMID: 19361609 [PubMed – in process]

The Publications

Title	Date	Name	Journal	Ref #
Radiation dose estimates in dual-source computed tomography coronary angiography.	Oct 2007	Stolzmann P, Scheffel H, Schertler T, Frauenfelder T, Leschka S, Husmann L, Flohr TG, Marincek B, Kaufmann PA, Alkadhi H.	Eur Radiol. 2008 Mar; 18(3):592-9. Epub 2007 Oct 2.	PMID: 17909816 [PubMed – in process]
Radiation dose of cardiac dual-source CT: the effect of tailoring the protocol to patient-specific parameters.	Oct 2008	Alkadhi H, Stolzmann P, Scheffel H, Desbiolles L, Baumüller S, Plass A, Genoni M, Marincek B, Leschka S.	Eur J Radiol. 2008 Dec; 68(3):385-91. Epub 2008 Oct 30.	PMID: 18976876 [PubMed – in process]
Radiation dose values for various coronary calcium scoring protocols in dual-source CT.	Dec 2008	Stolzmann P, Leschka S, Betschart T, Desbiolles L, Flohr TG, Marincek B, Alkadhi H.	Int J Cardiovasc Imaging. 2009 Apr; 25(4):443-51. Epub 2008 Dec 12.	PMID: 19082870 [PubMed – as supplied by publisher]
Strategies for Dose-Optimized Imaging in Pediatric Cardiac Dual Source CT.	Mar 2009	Kuettner A, Gehann B, Spolnik J, Achenbach S, Weyand M, Dittrich S, Uder M, Staatz G.	Rofo. 2009 Apr; 181(4):339-48. Epub 2009 Mar 16.	PMID: 19291603 [PubMed – indexed for MEDLINE]
Topic: Acute Care				
Actual Financial Comparison of Four Strategies to Evaluate Patients with Potential Acute Coronary Syndromes.	Jul 2008	Chang AM, Shofer FS, Weiner MG, Synnestvedt MB, Litt HI, Baxt WG, Hollander JE.	Acad Emerg Med. 2008 Jul; 15(7):649-55.	PMID: 18691213 [PubMed – indexed for MEDLINE]
Dual-source computed tomography in patients with acute chest pain: feasibility and image quality.	Sep 2007	Schertler T, Scheffel H et al.	Eur Radiol. 2007 Dec; 17(12):3179-88. Epub 2007 Sep 13.	PMID: 17851666 [PubMed – indexed for MEDLINE]
Dual-source CT for chest pain assessment.	Nov 2007	Johnson TR, Nikolaou K, Becker A, Leber AW, Rist C, Wintersperger BJ, Reiser MF, Becker CR.	Eur Radiol. 2008 Apr; 18(4):773-80. Epub 2007 Nov 22.	PMID: 18034246 [PubMed – indexed for MEDLINE]
Dual-source CT in chest pain diagnosis	Apr 2007	Johnson TR, Nikolaou K, Fink C, Becker A, Knez A, Rist C, Reiser MF, Becker CR.	Radiologe. 2007 Apr; 47(4):301-9. German.	PMID: 17285271 [PubMed – indexed for MEDLINE]
Estimation of the radiation exposure of a chest pain protocol with ECG-gating in dual-source computed tomography.	Jul 2008	Ketelsen D, Luetkhoff MH, Thomas C, Werner M, Buchgeister M, Tsiflikas I, Reimann A, Burgstahler C, Kopp AF, Claussen CD, Heuschmid M.	Eur Radiol. 2009 Jan; 19(1):37-41. Epub 2008 Jul 22.	PMID: 18648818 [PubMed – indexed for MEDLINE]
Incidental dual source computed tomography imaging of ductal aortic coarctation, left subclavian artery stenosis and bicuspid aortic valve in a patient admitted for atypical chest pain.	Mar 2008	Bastarriga G, De Cecco CN, Anselmi A, Herreros J.	Interact Cardiovasc Thorac Surg. 2008 May; 7(3):504-5. Epub 2008 Mar 5.	PMID: 18321948 [PubMed – indexed for MEDLINE]
The utilization of dual source CT in imaging of polytrauma.	Oct 2008	Nicolaou S, Eftekhari A, Sedlic T, Hou DJ, Mudri MJ, Aldrich J, Louis L.	Eur J Radiol. 2008 Dec; 68(3):398-408. Epub 2008 Oct 8.	PMID: 18845410 [PubMed – in process]
Topic: Dual Energy				
Abdominal aorta: evaluation with dual-source dual-energy multidetector CT after endovascular repair of aneurysms – initial observations.	Nov 2008	Chandarana H, Godoy MC, Vlahos I, Graser A, Babb J, Leidecker C, Macari M.	Radiology. 2008 Nov; 249(2):692-700. Epub 2008 Sep 23.	PMID: 18812561 [PubMed – indexed for MEDLINE]
Advances of dual source, dual-energy imaging in postmortem CT.	Jul 2008	Persson A, Jackowski C, Engström E, Zachrisson H.	Eur J Radiol. 2008 Dec; 68(3):446-55. Epub 2008 Jul 2.	PMID: 18599239 [PubMed – indexed for MEDLINE]
An initial qualitative study of dual-energy CT in the knee ligaments.	Apr 2008	Sun C, Miao F, Wang XM, Wang T, Ma R, Wang DP, Liu C.	Surg Radiol Anat. 2008 Jul; 30(5):443-7. Epub 2008 Apr 22.	PMID: 18427711 [PubMed – indexed for MEDLINE]
Cardiac myocardial perfusion imaging using dual source computed tomography.	Feb 2009	Blankstein R, Okada DR, Rocha-Filho JA, Rybicki FJ, Brady TJ, Cury RC.	Int J Cardiovasc Imaging. 2009 Feb 20. [Epub ahead of print]	PMID: 19229654 [PubMed – as supplied by publisher]
Clinical Utility of Dual-Energy CT in the Evaluation of Solitary Pulmonary Nodules: Initial Experience.	Nov 2008	Chae EJ, Song JW, Seo JB, Krauss B, Jang YM, Song KS.	Radiology. 2008 Nov; 249(2):671-81. Epub 2008 Sep 16.	PMID: 18796658 [PubMed – indexed for MEDLINE]

The Publications

Title	Date	Name	Journal	Ref #
Dual-Energy and Dual-Source CT: Is There a Role in the Abdomen and Pelvis?	Jan 2009	Fletcher JG, Takahashi N, Hartman R, Guimaraes L, Huprich JE, Hough DM, Yu L, McCollough CH.	Radiol Clin North Am. 2009 Jan; 47(1):41-57.	PMID: 19195533 [PubMed – indexed for MEDLINE]
Dual-energy computed tomography for the differentiation of uric acid stones: ex vivo performance evaluation.	Jun 2008	Stolzmann P, Scheffel H, Rentsch K, Schertler T, Frauenfelder T, Leschka S, Sulser T, Marincek B, Alkadhi H.	Urol Res. 2008 Aug; 36(3-4):133-8. Epub 2008 Jun 11.	PMID: 18545993 [PubMed – indexed for MEDLINE]
Dual-energy computed tomography imaging of myocardial infarction.	Mar 2009	Ruzsics B, Chiaramida SA, Schoepf UJ.	Heart. 2009 Mar; 95(3):180.	PMID: 19144876 [PubMed – indexed for MEDLINE]
Dual-energy contrast-enhanced computed tomography for the detection of urinary stone disease.	Dec 2007	Scheffel H, Stolzmann P, Frauenfelder T, Schertler T, Desbiolles L, Leschka S, Marincek B, Alkadhi H.	Invest Radiol. 2007 Dec; 42(12):823-9.	PMID: 18007154 [PubMed – indexed for MEDLINE]
Dual-Energy CT Angiography of the Lung in Patients with Suspected Pulmonary Embolism: Initial Results.	Oct 2008	Fink C, Johnson TR, Michaely HJ, Morhard D, Becker C, Reiser M, Nikolaou K.	Rofo. 2008 Oct; 180(10):879-83	PMID: 19238637 [PubMed – indexed for MEDLINE]
Dual-energy CT characterization of urinary calculi: initial in vitro and clinical experience.	Feb 2008	Graser A, Johnson TR, Bader M, Staehler M, Haseke N, Nikolaou K, Reiser MF, Stief CG, Becker CR.	Invest Radiol. 2008 Feb; 43(2):112-9.	PMID: 18197063 [PubMed – indexed for MEDLINE]
Dual-energy CT for the assessment of lung perfusion-correlation to scintigraphy.	Sep 2008	Thieme SF, Becker CR, Hacker M, Nikolaou K, Reiser MF, Johnson TR.	Eur J Radiol. 2008 Dec; 68(3):369-74. Epub 2008 Sep 5.	PMID: 18775618 [PubMed – in process]
Dual-energy CT for the characterization of urinary calculi: In vitro and in vivo evaluation of a low-dose scanning protocol.	Feb 2009	Thomas C, Patschan O, Ketelsen D, Tsiflikas I, Reimann A, Brodoefel H, Buchgeister M, Nagele U, Stenzl A, Claussen C, Kopp A, Heuschmid M, Schlemmer HP.	Eur Radiol. 2009 Feb 10. [Epub ahead of print]	PMID: 19205704 [PubMed – as supplied by publisher]
Dual-energy CT head bone and hard plaque removal for quantification of calcified carotid stenosis: utility and comparison with digital subtraction angiography.	Mar 2009	Uotani K, Watanabe Y, Higashi M, Nakazawa T, Kono AK, Hori Y, Fukuda T, Kanzaki S, Yamada N, Itoh T, Sugimura K, Naito H.	Eur Radiol. 2009 Mar 11. [Epub ahead of print]	PMID: 19277672 [PubMed – as supplied by publisher]
Dual-energy CT iodine overlay technique for characterization of renal masses as cyst or solid: a phantom feasibility study.	Jan 2009	Brown CL, Hartman RP, Dzyubak OP, Takahashi N, Kawashima A, McCollough CH, Bruesewitz MR, Primak AM, Fletcher JG.	Eur Radiol. 2009 May; 19(5):1289-95. Epub 2009 Jan 20.	PMID: 19153744 [PubMed – in process]
Dual-energy CT iodine-subtraction virtual unenhanced technique to detect urinary stones in an iodine-filled collecting system: a phantom study.	May 2008	Takahashi N, Hartman RP, Vrtiska TJ, Kawashima A, Primak AN, Dzyubak OP, Mandrekar JN, Fletcher JG, McCollough CH.	AJR Am J Roentgenol. 2008 May; 190(5):1169-73.	PMID: 18430827 [PubMed – indexed for MEDLINE]
Dual-energy CT of the heart for diagnosing coronary artery stenosis and myocardial ischemia-initial experience.	Jun 2008	Ruzsics B, Lee H, Zwerner PL, Gebregziabher M, Costello P, Schoepf UJ.	Eur Radiol. 2008 Nov; 18(11):2414-24. Epub 2008 Jun 4.	PMID: 18523782 [PubMed – indexed for MEDLINE]
Dual-energy CT of the heart – principles and protocols.	Nov 2008	Schwarz F, Ruzsics B, Schoepf UJ, Bastarrika G, Chiaramida SA, Abro JA, Brothers RL, Vogt S, Schmidt B, Costello P, Zwerner PL.	Eur J Radiol. 2008 Dec; 68(3):423-33. Epub 2008 Nov 12.	PMID: 19008064 [PubMed – in process]
Dual-energy CT: preliminary observations and potential clinical applications in the abdomen.	Aug 2008	Graser A, Johnson TR, Chandarana H, Macari M.	Eur Radiol. 2009 Jan; 19(1):13-23. Epub 2008 Aug 2.	PMID: 18677487 [PubMed – indexed for MEDLINE]
Dual-energy direct bone removal CT angiography for evaluation of intracranial aneurysm or stenosis: comparison with conventional digital subtraction angiography.	Nov 2008	Watanabe Y, Uotani K, Nakazawa T, Higashi M, Yamada N, Hori Y, Kanzaki S, Fukuda T, Itoh T, Naito H.	Eur Radiol. 2009 Apr; 19(4):1019-24. Epub 2008 Nov 11.	PMID: 19002466 [PubMed – in process]
Dual-energy x-ray absorptiometry: progress in the radiological identification of uric acid stones.	Jul 2008	Vandervaeren D, Kirsch J.	Prog Urol. 2008 Oct; 18(9):562-5. Epub 2008 Jul 29.	PMID: 18986626 [PubMed – indexed for MEDLINE]
Dual Source Computed Tomography: A Novel Technique to Determine Stone Composition.	May 2008	Matlaga BR, Kawamoto S, Fishman E.	AJR Am J Roentgenol. 2008 May; 190(5):1169-73.	PMID: 18619656 [PubMed – indexed for MEDLINE]

The Publications

Title	Date	Name	Journal	Ref #
Dual-source CT: in vitro characterization of gallstones using dual energy analysis.	Mar 2009	Voit H, Krauss B, Heinrich MC, Dimmler A, Adamitz B, Hinkmann FM, Uder M, Kuettner A.	Rofo. 2009 Apr; 181(4):367-73. Epub 2009 Mar 16.	PMID: 19291605 [PubMed – indexed for MEDLINE]
Empirical dual energy calibration (EDEC) for cone-beam computed tomography.	Sep 2007	Stenner P, Berkus T, Kachelriess M.	Med Phys. 2007 Sep; 34(9):3630-41.	PMID: 17926967 [PubMed – indexed for MEDLINE]
Endoleaks after Endovascular Abdominal Aortic Aneurysm Repair: Detection with Dual-Energy Dual-Source CT	Nov 2008	Stolzmann P, Frauenfelder T, Pfammatter T, Peter N, Scheffel H, Lachat M, Schmidt B, Marincek B, Alkadhi H, Schertler T.	Radiology. 2008 Nov; 249(2):682-91. Epub 2008 Sep 9.	PMID: 18780822 [PubMed – indexed for MEDLINE]
Evaluation of non-linear blending in dual-energy computed tomography.	Nov 2008	Holmes DR 3rd, Fletcher JG, Apel A, Huprich JE, Siddiki H, Hough DM, Schmidt B, Flohr TG, Robb R, McCollough C, Wittmer M, Eusemann C.	Eur J Radiol. 2008 Dec; 68(3):409-13. Epub 2008 Nov 5.	PMID: 18990521 [PubMed – in process]
Image fusion in dual energy computed tomography: effect on contrast enhancement, signal-to-noise ratio and image quality in computed tomography angiography.	Jan 2009	Behrendt FF, Schmidt B, Plumhans C, Keil S, Woodruff SG, Ackermann D, Mühlenbruch G, Flohr T, Günther RW, Mahnken AH.	Invest Radiol. 2009 Jan; 44(1):1-6.	PMID: 19060790 [PubMed – indexed for MEDLINE]
Image quality optimization and evaluation of linearly mixed images in dual-source, dual-energy CT.	Mar 2009	Yu L, Primak AN, Liu X, McCollough CH.	Med Phys. 2009 Mar; 36(3):1019-24.	PMID: 19378762 [PubMed – indexed for MEDLINE]
Images in cardiovascular medicine. Myocardial Ischemia Diagnosed by Dual-Energy Computed Tomography – Correlation With Single-Photon Emission Computed Tomography.	Mar 2008	Ruzsics B, Lee H, Powers ER, Flohr TG, Costello P, Schoepf UJ.	Circulation. 2008 Mar 4; 117:1244-1245.	PMID: 18316501 [PubMed – indexed for MEDLINE]
Lung perfusion with dual-energy multidetector-row CT (MDCT): feasibility for the evaluation of acute pulmonary embolism in 117 consecutive patients.	Dec 2008	Pontana F, Faivre JB, Remy-Jardin M, Flohr T, Schmidt B, Tacelli N, Pansini V, Remy J.	Acad Radiol. 2008 Dec; 15(12):1494-504.	PMID: 19000866 [PubMed – indexed for MEDLINE]
Material differentiation by dual energy CT: initial experience.	Dec 2006	Johnson TR, Krauss B, Sedlmair M, Grasruck M, Bruder H, Morhard D, Fink C, Weckbach S, Lenhard M, Schmidt B, Flohr T, Reiser MF, Becker CR.	Eur Radiol. 2007 Jun; 17(6):1510-7. Epub 2006 Dec 7.	PMID: 17151859 [PubMed – indexed for MEDLINE]
Noninvasive differentiation of uric acid versus non-uric acid kidney stones using dual-energy CT.	Dec 2007	Primak AN, Fletcher JG, Vrtiska TJ, Dzyubak OP, Lieske JC, Jackson ME, Williams JC Jr, McCollough CH.	Acad Radiol. 2007 Dec; 14(12):1441-7.	PMID: 18035274 [PubMed – indexed for MEDLINE]
Surface extraction from multi-material components for metrology using dual energy CT.	Nov 2007	Heinzl, C., J. Kastner, and E. Groller.	IEEE Trans Vis Comput Graph. 2007 Nov-Dec; 13(6):1520-7.	PMID: 17968105 [PubMed – indexed for MEDLINE]
The Value of Dual-Energy Bone Removal in Maximum Intensity Projections of Lower Extremity Computed Tomography Angiography.	Apr 2009	Sommer WH, Johnson TR, Becker CR, Arnoldi E, Kramer H, Reiser MF, Nikolaou K.	Invest Radiol. 2009 Apr 2. [Epub ahead of print]	PMID: 19346965 [PubMed – as supplied by publisher]
Value of Dual Energy Computed Tomography for detection of myocardial iron deposition in Thalassaemia patients: initial experience.	Sep 2008	Hazirolan T, Akpınar B, Unal S, Gümrük F, Haliloglu M, Alibek S.	Eur J Radiol. 2008 Dec; 68(3):442-5. Epub 2008 Sep 2.	PMID: 18768275 [PubMed – in process]
Vascular Disease in Chronic Obstructive Pulmonary Disease.	Dec 2008	Remy-Jardin M, Remy J.	Proc Am Thorac Soc. 2008 Dec 15; 5(9):891-9.	PMID: 19056712 [PubMed – indexed for MEDLINE]
Xenon ventilation CT using a dual-source dual-energy technique: dynamic ventilation abnormality in a child with bronchial atresia.	Jun 2008	Goo HW, Chae EJ, Seo JB, Hong SJ.	Pediatr Radiol. 2008 Jun 10. [Epub ahead of print]	PMID: 18542942 [PubMed – indexed for MEDLINE]
Xenon Ventilation CT with a Dual-Energy Technique of Dual-Source CT: Initial Experience.	Aug 2008	Chae EJ, Seo JB, Goo HW, Kim N, Song KS, Lee SD, Hong SJ, Krauss B.	Radiology. 2008 Aug; 248(2):615-24.	PMID: 18641254 [PubMed – indexed for MEDLINE]

The Publications

Title	Date	Name	Journal	Ref #
Topic: General				
Abdominal aorta: evaluation with dual-source dual-energy multidetector CT after endovascular repair of aneurysms-initial observations.	Sep 2008	Chandarana H, Godoy MC, Vlahos I, Graser A, Babb J, Leidecker C, Macari M.	Radiology. 2008 Nov; 249(2):692-700. Epub 2008 Sep 23.	PMID: 18812561 [PubMed – indexed for MEDLINE]
Anniversary paper: roles of medical physicists and health care applications of informatics.	Jan 2008	Kagadis GC, Nagy P, Langer S, Flynn M, Starkschall G.	Med Phys. 2008 Jan; 35(1):119-27.	PMID: 18293569 [PubMed – indexed for MEDLINE]
Dual source computed tomography: automated, visual or dual analysis?	Nov 2008	van der Wall EE, Reiber JH.	Int J Cardiovasc Imaging. 2009 Feb; 25(2):205-8. Epub 2008 Nov 27.	PMID: 19037747 [PubMed – in process]
Dual-source variable pitch spiral CT reconstruction algorithm.	Dec 2008	Zhao J, Liu Z, Jin Y, Zhuang T.	Sheng Wu Yi Xue Gong Cheng Xue Za Zhi. 2008 Dec;25(6):1249-53.	PMID: 19166186 [PubMed – in process]
First performance evaluation of a dual-source CT (DSCT) system.	Dec 2005	Flohr TG, McCollough CH, Bruder H, Petersilka M, Gruber K, Süß C, Grasruck M, Stierstorfer K, Krauss B, Raupach R, Primak AN, Küttner A, Achenbach S, Becker C, Kopp A, Ohnesorge BM.	Eur Radiol. 2006 Feb; 16(2):256-68. Epub 2005 Dec 10.	PMID: 16341833 [PubMed – indexed for MEDLINE]
Image reconstruction and image quality evaluation for a dual source CT scanner.	Dec 2008	Flohr TG, Bruder H, Stierstorfer K, Petersilka M, Schmidt B, McCollough CH.	Med Phys. 2008 Dec; 35(12):5882-97.	PMID: 19175144 [PubMed – indexed for MEDLINE]
Intensity distribution and impact of scatter for dual-source CT.	Nov 2007	Kyriakou Y, Kalender WA.	Phys Med Biol. 2007 Dec 7; 52(23):6969-89. Epub 2007 Nov 12.	PMID: 18029988 [PubMed – indexed for MEDLINE]
Modulation Transfer Function-based Assessment of Temporal Resolution: Validation for Single- and Dual-Source CT.	Jul 2008	Ertel D, Kröber E, Kyriakou Y, Langner O, Kalender WA.	Radiology. 2008 Sep; 248(3):1013-7. Epub 2008 Jul 15.	PMID: 18632531 [PubMed – indexed for MEDLINE]
Technical principles of dual source CT.	Oct 2008	Petersilka M, Bruder H, Krauss B, Stierstorfer K, Flohr TG.	Eur J Radiol. 2008 Dec; 68(3):362-8. Epub 2008 Oct 7.	PMID: 18842371 [PubMed – in process]
Thoracic applications of dual-source CT technology.	Oct 2008	Boroto K, Remy-Jardin M, Flohr T, Faivre JB, Pansini V, Tacelli N, Schmidt B, Gorgos A, Remy J.	Eur J Radiol. 2008 Dec; 68(3):375-84. Epub 2008 Oct 16.	PMID: 18929452 [PubMed – in process]
Ultra-high-resolution dual-source CT for forensic dental visualization-discrimination of ceramic and composite fillings.	Mar 2008	Jackowski C, Wyss M, Persson A, Classens M, Thali MJ, Lussi A.	Int J Legal Med. 2008 Jul; 122(4):301-7. Epub 2008 Mar 12.	PMID: 18335233 [PubMed – indexed for MEDLINE]
Wavelet based noise reduction in CT-images using correlation analysis.	Dec 2008	Borsdorf A, Raupach R, Flohr T, Hornegger J.	IEEE Trans Med Imaging. 2008 Dec; 27(12):1685-703.	PMID: 19033085 [PubMed – in process]

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