



Clinical Publications

SOMATOM Definition
July 2008

Answers for life.

SIEMENS

Clinical Publications – July 2008



- ▶ **More than 400 Dual Source installations worldwide**
- ▶ **More than 100 peer-reviewed publications**

Being one step ahead means not only having the most innovative scanner, but also to prove clinical relevance. Today, more than 400 SOMATOM Definitions are in clinical use worldwide, not only for daily clinical routine, but also for cutting-edge research – making it the preferred solution for both leading healthcare institutions and physicians around the world. In the meanwhile more than 100 peer-reviewed publications have been released using Dual Source CT, focusing on DSCT's unique strengths:

Faster than every beating heart –
with 83 ms true temporal resolution and no need for beta-blockers, proven by more than 25 publications.

Full cardiac detail at half the dose –
down to 2.5 mSv average dose, proven by 5 publications.

One-stop shop in Acute Care –
fast diagnosis to save time, lives and money, proven by 4 publications.

Beyond visualization with Dual Energy –
with 10 released applications and Optimum Contrast. Proven by 14 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
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Randomized Comparison of 64-Slice Single- and Dual-Source Computed Tomography Coronary Angiography for the Detection of Coronary Artery Disease

Stephan Achenbach, MD,* Ulrike Rippe, MD,* Axel Kostner, MD,†
Katharina Anders, MD,† Tobias Blanke, MD,* Sei Komata, 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

*Hans Scheffel, MD, †Hatem Alkadhi, MD, †Sebastian Leuchter, MD, †Andri Planz, MD,
†Lutz Desjardis, MD, †Timo Gulber, MD, †Tobias Frazee, MD,
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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/s00307-007-0601-y

COMPUTER TOMOGRAPHY

Thorsten H. C. Johnson
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Dual-source CT for chest pain assessment

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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 respiration 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/s00307-008-1022-x

CARDIAC IMAGING

Balazs Ruszics
Hoon Lee
Peter L. Zwerner
Malayeta 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 #
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, Vachenaer 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]
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. 2007 Aug 7; [Epub ahead of print]	PMID: 17680302 [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 – in process]
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.	Feb 2008	Dijkers R, Greuter MJ, Kristanto W, van Ooijen PM, Sijens PE, Willems TP, Oudkerk M.	Eur J Radiol. 2008 Feb 26; [Epub ahead of print]	PMID: 18308496 [PubMed – as supplied by publisher]
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
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 – in process]
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. 2007 Nov 23; [Epub ahead of print]	PMID: 18038190 [PubMed – as supplied by publisher]
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 – in process]
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 May 20.	PMID: 18491107 [PubMed – as supplied by publisher]
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. Review.	PMID: 17325571 [PubMed – indexed for MEDLINE]
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. 2007 Nov 21. [Epub ahead of print]	PMID: 18032458 [PubMed – as supplied by publisher]
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
Contrast enhanced ultrasound and Dual Source CT of left atrial myxoma.	May 2007	Clevert DA, Schweyer 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]

The Publications

Title	Date	Name	Journal	Ref #
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 – 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]
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 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 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 May 20. [Epub ahead of print]	PMID: 18491099 [PubMed – as supplied by publisher]
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 – in process]
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]
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. No abstract available.	PMID: 18184642 [PubMed – in process]
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
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]
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 – in process]
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. 2007 Sep 19; [Epub ahead of print]	PMID: 17881474 [PubMed – as supplied by publisher]
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 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]

The Publications

Title	Date	Name	Journal	Ref #
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 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 Apr 17. [Epub ahead of print]	PMID: 18418604 [PubMed – as supplied by publisher]
Dual-source CT with improved temporal resolution in assessment of left ventricular function: a pilot study.	Nov 2007	Brodoeffel 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 CT: Effect of Heart Rate, Heart Rate Variability, and Calcification on Image Quality and Diagnostic Accuracy.	Mar 2008	Brodoeffel H, Burgstahler C, Tsiflikas I, Reimann A, Schroeder S, Claussen CD, Heuschmid M, Kopp AF.	Radiology. 2008 Mar 27; [Epub ahead of print]	PMID: 18372455 [PubMed – as supplied by publisher]
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.	Aug 2008	Lerner CB, Frush DP, Boll DT.	Pediatr Radiol. 2008 Aug; 38(8):874-8. Epub 2008 Jun 4.	PMID: 18523763
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
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 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]
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 May 1. [Epub ahead of print]	PMID: 18449547 [PubMed – as supplied by publisher]
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 Apr 17. [Epub ahead of print]	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 May 1. [Epub ahead of print]	PMID: 18449597 [PubMed – as supplied by publisher]
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 – in process]
Influence of heart rate on the diagnostic accuracy of dual-source computed tomography coronary angiography.	Dec 2007	Ropers U, Ropers D, Pfloderer 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]

The Publications

Title	Date	Name	Journal	Ref #
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. No abstract available.	PMID: 18343798 [PubMed – in process]
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 – as supplied by publisher]
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 – in process]
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, Salamousas 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 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 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 – in process]
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]
Optimal systolic and diastolic reconstruction windows for coronary CT angiography using dual-source CT.	Dec 2007	Seifarth H, Wienbeck S, Püsken M, Juergens KU, Maintz D, Vahlhaus C, Heindel W, Fischbach R.	AJR Am J Roentgenol. 2007 Dec; 189(6):1317-23.	PMID: 18029865 [PubMed – indexed for MEDLINE]
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]
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 Feb 22; [Epub ahead of print]	PMID: 18292999 [PubMed – as supplied by publisher]
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 May 20. [Epub ahead of print]	PMID: 18491100 [PubMed – as supplied by publisher]
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 – in process]
Randomized comparison of 64-slice Single and Dual-Source Computed Tomography Coronary Angiography for the Detection of Coronary Artery Disease.	Jan 2008	Achenbach S, Ropers U, Kuettner A, Anders K, Pflederer T, Komatsu S, Bautz W.	JACC, VOL 1, NO. 2, 2008	
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 – in process]
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]

The Publications

Title	Date	Name	Journal	Ref #
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	
Screening for coronary artery disease in respiratory patients: comparison of single- and dual-source CT in patients with a heart rate above 70 bpm.	Jun 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
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