

2008 Publications from Massachusetts General Hospital Cardiac Imaging

Text Books and Monographs:

Abbara S, Walker TG. Diagnostic Imaging - CardioVascular.
Amirsys Inc, Salt Lake City, Utah. 2008. ISBN 978-1-4160-3340-0

Miller SW, Boxt LM, Abbara S. The Requisites – Cardiac Imaging. 3rd ed.
Elsevier Mosby. 2009. ISBN-10: 0323055273 ISBN-13: 978-0323055277

Osborn AG, Abbara S, Birdwell RL, Elster AD, Levy AD, Manaster BJ, Oestreich AE, Rosado de
Christensn ML. Year Book of Diagnostic Radiology, 2008.
Mosby, Philadelphia, 2008. ISBN-10: 1416051589; ISBN-13: 978-1416051589

Book-Chapters:

Kalra MK, Abbara S. Radiation dose considerations in cardiac CT. In: M. Di Carli and R. Kwong. *Novel
Techniques for Imaging the Heart: Cardiac MR and CT. AHA Clinical Textbook Series.*
Wiley-Blackwell, 2008. ISBN-10: 1405175338; ISBN-13: 978-1405175333

Soni A, Abbara S. Assessment of Valvular Heart Disease by CT. In: Braunwald E, Fauci AS, Isselbacher
KJ, Kasper DL, Hauser SL, Longo DL, Jameson JL, Eds. *Harrison's Online.* Mc Graw Hill, Medical
Publishing Division. January 2008. www.accessmedicine.com/updatesContent.aspx?aid=1001189

Kalra MK, Abbara S. How to Avoid and Salvage Imperfect Cardiac CT Studies. In: UJ Schoepf. *CT of
the Heart: Principles and Applications.* 2nd ed. ISBN-10: 1603272364; ISBN-13: 978-1603272360.

In press:

Bolen M, Abbara S. Aortic disease. In: Taylor AJ: Atlas of Cardiac CT, an Imaging Companion
to Braunwald's Heart Disease. Elsevier. 2009.

Abbara S, Mamuya W. Cardiac CT. In: Levine GN. Cardiology Secrets. 3rd Edition. 2009.

Journal articles indexed in PubMed (2008 only):

1: Shapiro MD, Pena AJ, Nichols JH, Worrell S, Bamberg F, Dannemann N, Abbara S, Cury RC, Brady
TJ, Hoffmann U. Efficacy of pre-scan beta-blockade and impact of heart rate on image quality in patients

undergoing coronary multidetector computed tomography angiography.
Eur J Radiol. 2008 Apr;66(1):37-41. Epub 2007 Jun 22.

2: Sarwar A, Nasir K, Shapiro MD, Abbara S.

Anomalous left inferior pulmonary vein crossing midline and draining via common ostium with right inferior pulmonary vein.

J Cardiovasc Electrophysiol. 2008 Feb;19(2):223.

3: Moloo J, Shapiro MD, Abbara S.

Cardiac computed tomography: technique and optimization of protocols.

Semin Roentgenol. 2008 Apr;43(2):90-9.

4: Abbara S, Soni AV, Cury RC.

Evaluation of cardiac function and valves by multidetector row computed tomography.

Semin Roentgenol. 2008 Apr;43(2):145-53.

5: Nieman K, Shapiro MD, Ferencik M, Nomura CH, Abbara S, Hoffmann U, Gold HK, Jang IK, Brady TJ, Cury RC.

Reperfused myocardial infarction: contrast-enhanced 64-Section CT in comparison to MR imaging.

Radiology. 2008 Apr;247(1):49-56.

6: Dodd JD, Ferencik M, Liberthson RR, Nieman K, Brady TJ, Hoffmann U, Cury RC, Abbara S.

Evaluation of efficacy of 64-slice multidetector computed tomography in patients with congenital coronary fistulas.

J Comput Assist Tomogr. 2008 Mar-Apr;32(2):265-70.

7: Ryan R, Abbara S, Colen RR, Arnous S, Quinn M, Cury RC, Dodd JD.

Cardiac valve disease: spectrum of findings on cardiac 64-MDCT.

AJR Am J Roentgenol. 2008 May;190(5):W294-303.

8: Sarwar A, Shapiro MD, Abbara S, Cury RC.

Cardiac magnetic resonance imaging for the evaluation of ventricular function.

Semin Roentgenol. 2008 Jul;43(3):183-92. Review. No abstract available.

9: Kalra MK, Abbara S.

Imaging cardiac tumors.

Cancer Treat Res. 2008;143:177-96.

10: Cury RC, Nieman K, Shapiro MD, Butler J, Nomura CH, Ferencik M, Hoffmann U, Abbara S, Jassal DS, Yasuda T, Gold HK, Jang IK, Brady TJ.

Comprehensive assessment of myocardial perfusion defects, regional wall motion, and left ventricular function by using 64-section multidetector CT.

Radiology. 2008 Aug;248(2):466-75.

11: Dodd JD, Rieber J, Pomerantsev E, Chaithiraphan V, Achenbach S, Moreiras JM, Abbara S, Hoffmann U, Brady TJ, Cury RC.

Quantification of nonculprit coronary lesions: comparison of cardiac 64-MDCT and invasive coronary angiography.

AJR Am J Roentgenol. 2008 Aug;191(2):432-8.

12: Cury RC, Shash K, Nagurney JT, Rosito G, Shapiro MD, Nomura CH, Abbara S, Bamberg F, Ferencik M, Schmidt EJ, Brown DF, Hoffmann U, Brady TJ.

Cardiac magnetic resonance with T2-weighted imaging improves detection of patients with acute coronary syndrome in the emergency department.

Circulation. 2008 Aug 19;118(8):837-44.

13: Dodd JD, Kalva S, Pena A, Bamberg F, Shapiro MD, Abbara S, Cury RC, Brady TJ, Hoffmann U.

Emergency cardiac CT for suspected acute coronary syndrome: qualitative and quantitative assessment of coronary, pulmonary, and aortic image quality.

AJR Am J Roentgenol. 2008 Sep;191(3):870-7.

14: Gupta V, Truong QA, Okada DR, Kiernan TJ, Yan BP, Cubeddu RJ, Roberts DJ, Abbara S, MacGillivray TE, Palacios IF.

Images in cardiovascular medicine. Giant left circumflex coronary artery aneurysm with arteriovenous fistula to the coronary sinus.

Circulation. 2008 Nov 25;118(22):2304-7.

15: Inglessis I, Abbara S, de Moor M.

Which diagnostic modality for adult congenital heart disease?

J Cardiovasc Comput Tomogr. 2008 Jan;2(1):23-5.

16: Abbara S, Sahani D.

Dual-energy computed tomography: promised land or empty promise?

J Cardiovasc Comput Tomogr. 2008 Jul-Aug;2(4):243-4. Epub 2008 Jun 4.

17: Abbara S.

Thoracic aortic reference values for multidetector computed tomography: why bother?

J Cardiovasc Comput Tomogr. 2008 Sep-Oct;2(5):309-10.

18: Durst R, Avelar E, Sollis J, King ME, Abbara S.
Cleft mitral valve appearance on cardiac computed tomography.
J Cardiovasc Comput Tomogr. 2008 Sep-Oct;2(5):341-2

19: Thiagalingam A, Reddy VY, Cury RC, Abbara S, Holmvang G, Thangaroopan M, Ruskin JN, d'Avila A.
Pulmonary vein contraction: characterization of dynamic changes in pulmonary vein morphology using multiphase multislice computed tomography scanning.
Heart Rhythm. 2008 Dec;5(12):1645-50.

20: Min JK, Abbara S, Berman DS, Edgerton DM, Gerson MC, Halliburton S, Hines JL, Hodgson JM, Lesser JR, Lennond L, Taylor AJ, Wann LS, Ziffer JA, Cerqueira MD.
Blueprint of the certification examination in cardiovascular computed tomography.
J Cardiovasc Comput Tomogr. 2008 Jul-Aug;2(4):263-71.

21: Miller JC, Abbara S, Mamuya WS, Thrall JH, Uppot RN.
Dual-source CT for cardiac imaging.
J Am Coll Radiol. 2009 Jan;6(1):65-8.

Cardiac MR PET CT Program Publications 2008

Bamberg F, Dannemann N, Shapiro MD, Seneviratne SK, Ferencik M, Butler J, Koenig W, Nasir K, Cury RC, Tawakol A, Achenbach S, Brady TJ, Hoffmann U. Association between cardiovascular risk profiles and the presence and extent of different types of coronary atherosclerotic plaque as detected by multidetector computed tomography. *Arteriosclerosis Thrombosis and Vascular Biology*. 2008;28(3):568-574.

Butler J, Mooyaart EAQ, Dannemann N, Bamberg F, Shapiro MD, Ferencik M, Brady TJ, Hoffmann U. Relation of the metabolic syndrome to quantity of coronary atherosclerotic plaque. *American Journal of Cardiology*. 2008;101(8):1127-1130.

Cury RC, Nieman K, Shapiro MD, Butler J, Nomura CH, Ferencik M, Hoffmann U, Abbara S, Jassal DS, Yasuda T, Gold HK, Jang IK, Brady TJ. Comprehensive assessment of myocardial perfusion defects, regional wall motion, and left ventricular function by using 64-section multidetector CT. *Radiology*. 2008;248(2):466-475.

Cury RC, Shash K, Nagurney JT, Rosito G, Shapiro MD, Nomura CH, Abbara S, Bamberg F, Ferencik M, Schmidt EJ, Brown DF, Hoffmann U, Brady TJ. Cardiac magnetic resonance with T2-weighted imaging improves detection of patients with acute coronary syndrome in the emergency department. *Circulation*. 2008;118(8):837-844.

d'Othee BJ, Siebert U, Cury R, Jadvar H, Dunn EJ, Hoffmann U. A systematic review on diagnostic accuracy of CT-based detection of significant coronary artery disease. *European Journal of Radiology*. 2008;65(3):449-461.

Dodd JD, Ferencik M, Liberthson RR, Nieman K, Brady TJ, Hoffmann U, Cury RC, Abbara S. Evaluation of efficacy of 64-slice multidetector computed tomography in patients with congenital coronary fistulas. *Journal of Computer Assisted Tomography*. 2008;32(2):265-270.

Dodd JD, Kalva S, Pena A, Bamberg F, Shapiro MD, Abbara S, Cury RC, Brady TJ, Hoffmann U. Emergency cardiac CT for suspected acute coronary syndrome: Qualitative and quantitative assessment of coronary, pulmonary, and aortic image quality. *American Journal of Roentgenology*. 2008;191(3):870-877.

Dodd JD, Rieber J, Pomerantsev E, Chaithiraphan V, Achenbach S, Moreiras JM, Abbara S, Hoffmann U, Brady TJ, Cury RC. Quantification of nonculprit coronary lesions: Comparison of cardiac 64-MDCT and invasive coronary angiography. *American Journal of Roentgenology*. 2008;191(2):432-438.

Hoffmann U, Massaro JM, Fox CS, Manders E, O'Donnell CJ. Defining Normal Distributions of Coronary Artery Calcium in Women and Men (from the Framingham Heart Study). *American Journal of Cardiology*. 2008;102(9):1136-1141.

Kalichman L, Li L, Kim DH, Guermazi A, Berkin V, O'Donnell CJ, Hoffmann U, Cole R, Hunter DJ. Facet Joint Osteoarthritis and Low Back Pain in the Community-Based Population. *Spine*. 2008;33(23):2560-2565.

Ladapo JA, Hoffmann U, Bamberg F, Nagurney JT, Cutler DM, Weinstein MC, Gazelle GS. Cost-effectiveness of coronary MDCT in the triage of patients with acute chest pain. *American Journal of Roentgenology*. 2008;191(2):455-463.

Nieman K, Shapiro MD, Ferencik M, Nomura CH, Abbara S, Hoffmann U, Gold HK, Jang IK, Brady TJ, Cury RC. Reperfused myocardial infarction: Contrast-enhanced 64-section CT in comparison to MR imaging. *Radiology*. 2008;247(1):49-56.

Parikh NI, Hwang SJ, Larson MG, Hoffmann U, Levy D, Meigs JB, O'Donnell CJ, Fox CS. Indexes of kidney function and coronary artery and abdominal aortic calcium (from the Framingham Offspring Study). *American Journal of Cardiology*. 2008;102(4):440-443.

Rosito GA, Massaro JM, Hoffmann U, Ruberg FL, Mahabadi AA, Vasan RS, O'Donnell CJ, Fox CS. Pericardial fat, visceral abdominal fat, cardiovascular disease risk factors, and vascular calcification in a community-based sample - The Framingham Heart Study. *Circulation*. 2008;117(5):605-613.

Sarwar A, Rieber J, Mooyaart EAQ, Seneviratne SK, Houser SL, Bamberg F, Raffel OC, Gupta R, Kalra MK, Pien H, Lee H, Brady TJ, Hoffmann U. Calcified plaque: Measurement of area at thin-section flat-panel CT and 64-section multidetector CT and comparison with histopathologic findings. *Radiology*. 2008;249(1):301-306.

Shapiro MD, Pena AJ, Nichols JH, Worrell S, Bamberg F, Dannemann N, Abbara S, Cury RC, Brady TJ, Hoffmann U. Efficacy of pre-scan beta-blockade and impact of heart rate on image quality in patients undergoing coronary multidetector computed tomography angiography. *European Journal of Radiology*. 2008;66(1):37-41.

Sorgente A, Truong QA, Conca C, Singh JP, Hoffmann U, Faletta FF, Klersy C, Bhatia R, Pedrazzini GB, Pasotti E, Moccetti T, Auricchio A. Influence of left atrial and ventricular volumes on the relation between mitral valve annulus and coronary sinus. *American Journal of Cardiology*. 2008;102(7):890-896.

Speliotes EK, Massaro JM, Hoffmann U, Foster MC, Sahani DV, Hirschhorn JN, O'Donnell CJ, Fox CS. Liver fat is reproducibly measured using computed tomography in the Framingham Heart Study. *Journal of Gastroenterology and Hepatology*. 2008;23(6):894-899.

Young JA, Hwang SJ, Sarnak MJ, Hoffmann U, Massaro JM, Levy D, Benjamin EJ, Larson MG, Vasan RS, O'Donnell CJ, Fox CS. Association of Visceral and Subcutaneous Adiposity with Kidney Function. *Clinical Journal of the American Society of Nephrology*. 2008;3(6):1786-1791.

Truong QA, Hoffmann U, Singh JP. Potential uses of computed tomography for management of heart failure patients with dyssynchrony. *Crit Pathw Cardiol*. 2008 Sep;7(3):185-90.

Rogg JG, Neve JW, Huang C, Brown D, Jang IK, Chang Y, Marill K, Parry B, Hoffmann U, Nagurney JT. The triple work-up for emergency department patients with acute chest pain: how often does it occur? *J Emerg Med*. 2008 Sep 12. [Epub ahead of print]

Truong QA, Singh JP, Cannon CP, Sarwar A, Nasir K, Auricchio A, Faletra FF, Sorgente A, Conca C, Moccetti T, Handschumacher M, Brady TJ, Hoffmann U. Quantitative Analysis of Intraventricular Dyssynchrony Using Wall Thickness by Multidetector Computed Tomography. *JACC Cardiovasc Imaging*. 2008 Nov;1(6):772-781.

Nichols JH, Samy B, Nasir K, Fox CS, Schulze PC, Bamberg F, Hoffmann U. Volumetric measurement of pericardial adipose tissue from contrast-enhanced coronary computed tomography angiography: a reproducibility study. *J Cardiovasc Comput Tomogr*. 2008 Sep-Oct;2(5):288-95.

Pou KM, Massaro JM, Hoffmann U, Lieb K, Vasan RS, O'Donnell CJ, Fox CS. Patterns of Abdominal Fat Distribution: The Framingham Heart Study. *Diabetes Care*. 2008 Dec 15.

Molenaar EA, Massaro JM, Jacques PF, Pou KM, Ellison RC, Hoffmann U, Pencina K, Shadwick SD, Vasan RS, O'Donnell CJ, Fox CS. Association of Lifestyle Factors with Abdominal Subcutaneous and Visceral Adiposity: The Framingham Heart Study. *Diabetes Care*. 2008 Dec 15.

Rieber J, Sheth TN, Mooyaart EA, Shapiro MD, Butler J, Ferencik M, Brady TJ, Klauss V, Hoffmann U. Assessment of the presence and extent of coronary collateralization by coronary computed tomographic angiography in patients with total occlusions. *Int J Cardiovasc Imaging*. 2008 Nov 20.

Thiagalingam A, Reddy VY, Cury RC, Abbara S, Holmvang G, Thangaroopan M, Ruskin JN, d'Avila A. Pulmonary vein contraction: Characterization of dynamic changes in pulmonary vein morphology using multiphase multislice computed tomography scanning. *Heart Rhythm*. 2008;5(12):1645-1650.

Tournoux F, Chan RC, Handschumacher MD, Salgo IS, Manzke R, Settlemier S, Guerrero JL, Cury RC, Weyman AE, Picard MH. Estimation of radial strain and rotation using a new algorithm based on speckle tracking. *Journal of the American Society of Echocardiography*. 2008;21(10):1168-1174.

Ryan R, Abbara S, Colen RR, Arnous S, Quinn M, Cury RC, Dodd JD. Cardiac valve disease: Spectrum of findings on cardiac 64-MDCT. *American Journal of Roentgenology*. 2008;190(5):W294-W303.

Sarwar A, Shapiro MD, Abbara S, Cury RC. Cardiac magnetic resonance imaging for the evaluation of ventricular function. *Seminars in Roentgenology*. 2008;43(3):183-192.

Feuchtner GM, Dichtl W, Bonatti JO, Jodocy D, Muller S, Hintringer F, Gradl J, Klauser A, Cury RC. Diagnostic Accuracy of Cardiac 64-Slice Computed Tomography in Detecting Atrial Thrombi Comparative Study With Transesophageal Echocardiography and Cardiac Surgery. *Investigative Radiology*. 2008;43(11):794-801.