

## Publications 2014

### Original publications

1. Jujic A, Leosdottir M, Ostling G, **Gudmundsson P**, Nilsson P, Melander O, Magnusson M. A genetic variant of the atrial natriuretic peptide gene is associated with left ventricular hypertrophy in a non-diabetic population -- the Malmo preventive project study. *BMC Med Genet*. 2013 Jun 24;14(1):64.
2. Bergenzaun L, Ohlin H, **Gudmundsson P**, Willenheimer R, Chew MS. Mitral annular plane systolic excursion (MAPSE) in shock: a valuable echocardiographic parameter in intensive care patients. *Cardiovasc Ultrasound*. 2013 May 30;11:16
3. Bergenzaun L, Ohlin H, **Gudmundsson P**, Düring J, Willenheimer R, Chew MS. High-sensitive cardiac Troponin T is superior to echocardiography in predicting 1-year mortality in patients with SIRS and shock in intensive care. *BMC Anesthesiol*. 2012 Sep 24;12:25.
4. Bergenzaun L, **Gudmundsson P**, Ohlin H, Düring J, Ersson A, Ihrman L, Willenheimer R, Chew MS. Assessing left ventricular systolic function in shock: evaluation of echocardiographic parameters in intensive care. *Crit Care*. 2011 Aug 16;15(4):R200. [Epub ahead of print]
5. Shahgaldi K, Manouras A, Abrahamsson A, **Gudmundsson P**, Brodin LA, Winter R. Three-dimensional echocardiography using single-heartbeat modality decreases variability in measuring left ventricular volumes and function in comparison to four-beat technique in atrial fibrillation. *Cardiovasc Ultrasound*. 2010 Oct 5;8(1):45.
6. Leosdóttir M, Willenheimer R, Plehn J, Borgquist R, **Gudmundsson P**, Harris TB, Launer LJ, Bjornsdottir H, Nilsson PM, Gudnason V. Myocardial structure and function by echocardiography in relation to glucometabolic status in elderly subjects from 2 population-based cohorts: a cross-sectional study. *Am Heart J*. 2010 Mar;159(3):414-20.
7. **Gudmundsson P**, Kambiz Shahgaldi, Reidar Winter, Magnus Dencker, Mariusz Kitlinski, Ola Thorsson, Lennart Ljunggren, Ronnie Willenheimer. Parametric quantification of myocardial ischemia using real-time perfusion adenosine stress echocardiography images, with SPECT as reference method. *Clin Physiol Funct Imaging*. 2010 Jan;30(1):30-42.
8. Shahgaldi K, **Gudmundsson P**, Manouras A, Brodin LA, Winter R. Visually estimated ejection fraction by two dimensional and triplane echocardiography is closely correlated with quantitative ejection fraction by real-time three dimensional echocardiography. *Cardiovascular Ultrasound* 2009 Aug: 7:41.
9. **Gudmundsson P**, Shahgaldi K, Winter R, Dencker M, Kitlinski M, Thorsson O, Willenheimer R, Ljunggren L. Quantitative detection of myocardial ischaemia by stress echocardiography; a comparison with SPECT. *Cardiovascular Ultrasound* 2009 Jun: 7:28.
10. **Gudmundsson P**, Shahgaldi K, Winter R, Dencker M, Kitlinski M, Thorsson O, Ljunggren L, Willenheimer R. Head to head comparisons of two modalities of perfusion adenosine stress echocardiography with simultaneous SPECT. *Cardiovascular Ultrasound* 2009 Apr: 7:19.
11. Valzania C, Gadler F, Winter R, Braunschweig F, Brodin LA, **Gudmundsson P**, Boriani G, Eriksson MJ. Effects of cardiac resynchronization therapy on coronary blood flow: evaluation by transthoracic Doppler echocardiography. *Eur J Heart Fail*. 2008 May;10(5): 514-20.
12. Shahgaldi K, Söderqvist E, **Gudmundsson P**, Winter R, Nowak J, Brodin LA. Flow-volume loops derived from three-dimensional echocardiography: a novel approach to the assessment of left ventricular hemodynamics. *Cardiovasc Ultrasound*. 2008 Apr 4;6:13.

13. Borgquist R, Nilsson PM, **Gudmundsson P**, Winter R, Léosdóttir M, Willenheimer R. Coronary flow velocity reserve reduction is comparable in patients with erectile dysfunction and in patients with impaired fasting glucose or well-regulated diabetes mellitus. *Eur J Cardiovasc Prev Rehabil*. 2007 Apr;14(2):258-64.
14. Borgquist R, **Gudmundsson P**, Winter R, Nilsson P, Willenheimer R. Erectile dysfunction in healthy subjects predicts reduced coronary flow velocity reserve. *Int J Cardiol*. 2006 Sep 20;112(2):166-70.
15. **Gudmundsson P**, Winter R, Dencker M, Kitlinski M, Thorsson O, Ljunggren L, Willenheimer R. Real-time perfusion adenosine stress echocardiography versus myocardial perfusion adenosine scintigraphy for the detection of myocardial ischemia in patients with stable coronary artery disease. *Clin Physiol Funct Imaging*. 2006 Jan;26(1):32-8.
16. **Gudmundsson P**, Rydberg E, Winter R, Willenheimer R. Visually estimated ejection fraction is closely correlated with quantitative methods. *Int J Cardiol*. 2005 May 25;101(2):209-12.
17. Winter R, **Gudmundsson P**, Willenheimer R. Real-time perfusion adenosine stress echocardiography in the coronary care unit: a feasible bedside tool for predicting coronary artery stenosis in patients with acute coronary syndrome. *Eur J Echocardiogr*. 2005 Jan;6(1):31-40.
18. Rydberg E, **Gudmundsson P**, Kennedy L, Erhardt L, Willenheimer R. Left atrioventricular plane displacement but not left ventricular ejection fraction is influenced by the degree of aortic stenosis. *Heart*. 2004 Oct;90(10):1151-5.
19. Winter R, **Gudmundsson P**, Ericsson G, Willenheimer R. Correlation of the M-mode atrioventricular plane early diastolic downward slope and systolic parameters. Coupling of LV systolic and early diastolic function. *Int J Cardiovasc Imaging*. 2004 Apr;20(2):101-6.
20. Winter R, **Gudmundsson P**, Willenheimer R. Feasibility of Noninvasive Transthoracic Echo/Doppler measurement of Coronary Flow Reserve in LAD in Patients having Acute Coronary Syndrome; A New Technique tested in clinical practice. *J Am Soc Echocardiogr*. 2003 May;16(5):464-8.
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22. Willenheimer R, Rydberg E, Stagno M, **Gudmundsson P**, Ericsson G, Erhardt L. Echocardiographic assessment of left atrioventricular plane displacement as a complement to left ventricular regional wall motion evaluation in the detection of myocardial dysfunction. *Int J Cardiovasc Imaging* 2002 Jun;18(3): 181-6.
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24. Winter R, **Gudmundsson P**, Ericsson G, Willenheimer R. Left ventricular early diastolic inflow velocity and atrioventricular plane downward velocity: useful parameters to test diastolic function in clinical practice? Diastolic parameters tested in a clinical setting. *Eur J Echocardiography* 2001 Jun;2(2): 126-31.

#### **Peer-Reviewed conference contribution (articles)**

25. Hansson M, Fundana K, Brandt S, **Gudmundsson P**. Convex Spatio-Temporal Segmentation of the Endocardium in Ultrasound Data Using Distribution and Shape Priors. In Proc. IEEE International Symposium on Biomedical Imaging (ISBI 2011), Chicago, IL, USA.

26. Hansson M, Brandt S, **Gudmundsson P**, Lindgren F. Evaluation Of Cardiac Ultrasound Data by Bayesian Probability Maps. In Proc. 5th International Symposium on Visual Computing (ISVC 2009), Las Vegas, NV.
27. Hansson M, Brandt S, **Gudmundsson P**. Bayesian Probability Maps For Evaluation Of Cardiac Ultrasound Data. In Proc. Probabilistic Models for Medical Image Analysis (PMMIA 2009); in conjunction with MICCAI, London, UK.

**Peer-Reviewed conference contribution (abstract)**

28. Malmgren A, Dencker M, Stagmo M, **Gudmundsson P**. Cardiac dimensions and function in female elite team game handball players. Accepted, Eur J Echocardiogr 2011.
29. Malmgren A, Dencker M, Stagmo M, **Gudmundsson P**. Cardiac dimensions in female elite handball players. Scand Cardiovasc J 2011: Suppl 58: 30.
30. Shahgaldi K, Manouras A, Abrahamsson A, **Gudmundsson P**, Brodin LÅ, Winter R. Three-dimensional echocardiography using single-heartbeat modality decreases variability in measuring left ventricular volumes and function in comparison to four-beat technique in atrial fibrillation. Eur J Echocardiography 2010: Suppl 1: P885
31. Bergenzaun L, Chew M, Ersson A, **Gudmundsson P**, Ohlin H. Assessing myocardial systolic function in sirs and sepsis: echocardiographic parameters in intensive care. Eur J Echocardiogr 2010: Suppl 1: P684
32. Malmgren A, **Gudmundsson P**, Winter R, Dencker M, Ljunggren L, Willenheimer R. Apical three-chamber view replacing the traditional parasternal long-axis view in echocardiographic evaluation of myocardial perfusion? Scand Cardiovasc J 2008: Suppl 56: 100.
33. **Gudmundsson P**, Shahgaldi K, Winter R, Dencker M, Kitlinski M, Thorsson O, Ljunggren L, Willenheimer R. Parametric quantification of myocardial ischemia using real-time perfusion adenosine stress echocardiography images. A comparison with SPECT. Scand Cardiovasc J 2008: Suppl 56: 98.
34. **Gudmundsson P**, Shahgaldi K, Winter R, Dencker M, Kitlinski M, Thorsson O, Willenheimer R, Ljunggren L. Quantitative detection of myocardial ischaemia by real-time perfusion adenosine stress echocardiography. A comparison with SPECT. Scand Cardiovasc J 2008: Suppl 56: 99.
35. Bergenzaun L, **Gudmundsson P**, During J, Ohlin H, Ersson A, Chew M. Myocardial systolic dysfunction in sirs and sepsis: an echocardiographic study. Eur J Echocardiogr 2007: Suppl 1: P816
36. **Gudmundsson P**, Shahgaldi K, Winter R, Dencker M, Kitlinski M, Thorsson O, Ljunggren L, Willenheimer R. Quantitative detection of myocardial ischaemia by real-time perfusion adenosine stress echocardiography. A comparison with SPECT. Eur J Echocardiogr 2007: Suppl 1: P708.
37. **Gudmundsson P**, Shahgaldi K, Winter R, Dencker M, Kitlinski M, Thorsson O, Ljunggren L, Willenheimer R. Parametric quantification of myocardial ischemia using real-time perfusion adenosine stress echocardiography images. A comparison with SPECT. Eur J Echocardiogr 2007: Suppl 1: P701.
38. **Gudmundsson P**, Dencker M, Winter R, Thorsson O, Willenheimer R. The importance of focal zone positioning for the detection of apical ischemia by myocardial contrast real-time perfusion stress echocardiography compared with 99mTc-sestamibi single-photon emission computed tomography. Eur J Echocardiogr 2006: 7: Suppl 1: P1096.
39. **Gudmundsson P**, Kambiz S, Winter R, Dencker M, Thorsson O, Ljunggren L, Willenheimer R. High-resolution grey scale power modulation or angio mode power modulation ? Head to head comparisons of two modalities of real-time perfusion

adenosine stress echocardiography with simultaneous SPECT. *Scand Cardiovasc J* 2006; 40: Suppl 54: 34.

40. **Gudmundsson P**, Dencker M, Winter R, Thorsson O, Willenheimer R. The importance of focal zone positioning for the detection of apical ischemia by myocardial contrast real-time perfusion stress echocardiography compared with <sup>99m</sup>Tc-sestamibi single-photon emission computed tomography. *Eur J Echocardiogr* 2005; 6: Suppl 1: 743.
41. **Gudmundsson P**, Borgquist R, Winter R, Shahgaldi K, Killinski K, Willenheimer R. Feasibility of quantitative analysis in real-time myocardial contrast echocardiography in clinical settings compared with coronary flow reserve. *Eur J Echocardiogr* 2005; 6: Suppl 1: 963.
42. **Gudmundsson P**, Winter R, Dencker M, Kitlinski M, Thorsson O, Willenheimer R. The importance of focal zone positioning for the detection of apical ischemia by myocardial contrast real-time perfusion echocardiography: A comparison with simultaneous SPECT. *Scand Cardiovasc J* 2005; 39: Suppl 53: A39
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44. Winter R, **Gudmundsson P**, Dencker M, Thorsson O, Willenheimer R. High-resolution grey scale power modulation or angio mode power modulation ? Head to head comparisons of two modalities of real-time perfusion adenosine stress echocardiography with simultaneous SPECT. *Eur J Echocardiogr* 2004; 5: Suppl 1: P773.
45. **Gudmundsson P**, Winter R, Dencker M, Thorsson O, Ljunggren L, Willenheimer R. Real-time perfusion adenosine stress echocardiography in comparison with myocardial perfusion adenosine scintigraphy for the detection of myocardial ischemia. *Eur J Echocardiogr* 2004; 5: Suppl 1: P759.
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48. **Gudmundsson P**, Rydberg E, Winter R, Willenheimer R. Visually estimated left ventricular ejection fraction by echocardiography is closely correlated with quantitative methods. *Svenskt kardiovaskulärt vårmöte. Scand Cardiovasc J* 2004; 39: Suppl.
49. **Gudmundsson P**, Rydberg E, Winter R, Willenheimer R. Visually estimated left ventricular ejection fraction by echocardiography is closely correlated with quantitative methods. *World Congress of Cardiology, Sidney. J Am Coll Cardiol abstract supplement* 2002; 39, Supplement B.