

Novel aspects of left ventricular quantification with three-dimensional echocardiography

Validation and clinical applications

Sebastiaan A. Kleijn

Cover image:

Three-dimensional image of the heart made with ultrasound (*please use your 3D glasses*). Cross section through the right ventricle (triangular shape to the left) and the left ventricle (circular shape to the right) with a clear view of the open mitral valve with the left atrium behind it. The right ventricle pumps de-oxygenated blood into the lungs so that carbon dioxide can be dropped off and oxygen picked up. The oxygenated blood then flows to the left atrium and through the open mitral valve into the left ventricle, after which the mitral valve closes and the left ventricle contracts to pump the blood through the aortic valve into the aorta.

Afbeelding op de voorkant:

Drie-dimensionaal beeld van het hart gemaakt met ultrageluid (*gebruik hiervoor uw 3D-bril*). Dwarsdoorsnede door de rechter hartkamer (driehoekige vorm aan de linker zijde) en de linker hartkamer (ronde vorm aan de rechter zijde) met een duidelijk zicht op de openstaande mitralisklep met de achterliggende linker boezem. De rechter hartkamer pompt zuurstofarm bloed naar de longen, waar koolstofdioxide wordt afgegeven en zuurstof wordt opgenomen. Het zuurstofrijke bloed stroomt vervolgens naar de linker boezem en door de open mitralisklep naar de linker hartkamer, waarna de mitralisklep sluit en de linker hartkamer het bloed door de aortaklep in de grote lichaamsslagader pompt.

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**Voor Ramón, mijn grote broer
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Ik hou van jullie

Contents

General introduction and outline of the thesis

Chapter 1:	Clinical application of three-dimensional echocardiography: past, present, and future. <i>Neth Heart J.</i> 2009;17:18-24.	10
<i>Part 1.</i>	<i>Quantitative assessment of left ventricular volumes and function</i>	
Chapter 2:	Three-dimensional echocardiography for left ventricular quantification: fundamental validation and clinical applications <i>Neth Heart J.</i> 2011;19:423-31.	30
Chapter 3:	Comparison between direct volumetric and speckle tracking methodologies for left ventricular and left atrial chamber quantification by three-dimensional echocardiography <i>Am J Cardiol.</i> 2011;108:1038-44.	48
Chapter 4:	Reliability of left ventricular volumes and function measurements using three-dimensional speckle tracking echocardiography <i>Eur Heart J Cardiovasc Imaging.</i> 2012;13:159-68.	62
Chapter 5:	Comparison between three-dimensional speckle tracking echocardiography and magnetic resonance imaging for quantification of left ventricular volumes and function <i>Eur Heart J Cardiovasc Imaging.</i> 2012 Feb 17 [Epub ahead of print].	82
Chapter 6:	Three-dimensional speckle tracking echocardiography for automatic assessment of global and regional left ventricular function based on area strain <i>J Am Soc Echocardiogr.</i> 2011;24:314-21.	96
<i>Part 2.</i>	<i>Quantitative assessment of left ventricular dyssynchrony</i>	
Chapter 7:	A meta-analysis of left ventricular dyssynchrony and prediction of response to cardiac resynchronization therapy using three-dimensional echocardiography <i>Eur Heart J Cardiovasc Imaging.</i> 2012 Feb 28 [Epub ahead of print].	116
Chapter 8:	Relation between three-dimensional echocardiography derived left ventricular volume and MRI derived circumferential strain in patients eligible for cardiac resynchronization therapy <i>Int J Cardiovasc Imaging.</i> 2009;25:1-11.	138
Chapter 9:	Assessment of intraventricular mechanical dyssynchrony and prediction of response to cardiac resynchronization therapy: comparison between tissue Doppler imaging and real-time three-dimensional echocardiography <i>J Am Soc Echocardiogr.</i> 2009;22:1047-54.	156
<i>Part 3.</i>	<i>Summarizing discussion and future perspectives</i>	
Chapter 10:	The future of echocardiographic left ventricular quantification: towards automated assessment of global and regional function in four dimensions <i>European Cardiology</i> 2011;7:241-5 (invited editorial).	176
Chapter 11:	Summary	190

Appendices

Appendix 1:	Nederlandse samenvatting	198
Appendix 2:	Acknowledgements / Dankwoord	204
Appendix 3:	Curriculum vitae	212
Appendix 4:	List of publications	216