# Assessment of the Role of Speckle Tracking Echocardiography in Targeting the Left Ventricular Lead Position in Patients Undergoing Cardiac Resynchronization Therapy

#### **Thesis**

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## **List of Abbreviations**

2D Two-dimensional 3D Three-dimensional

American College of Cardiology/American ACC/AHA:

**Heart Association** 

AV Atrio-ventricular AVC Aortic valve closure AVO : Aortic valve opening

CARE-HF : Cardiac Resynchronization Heart Failure

Trial

CARE-HF: Cardiac Resynchronization Heart Failure

COMPANION: Comparison of Medical Therapy, Pacing,

and Defibrillation in Heart Failure

CONTAK-CD: Cardiac Resynchronization Therapy for the

Treatment of Heart Failure in Patients with Intraventricular Conduction Delay Malignant Ventricular Tachyarrhythmias

**CRT** Cardiac Resynchronization Therapy

Cardiac Resynchronization Therapy with a CRT-D

defibrillator

CRT-P Resynchronization Therapy Cardiac

pacing

Doppler tissue imaging DTI

**ECG** Electrocardiogram EF **Ejection fraction** 

Effective regurgitant orifice area **EROA** 

**ESPVR** End-systolic pressure-volume relationship

Food and Drug Administration FDA

HF Heart failure HR Hazard ratio

Inter-ventricular mechanical delay **IVMD** 

LA Left atrium

Left anterior oblique LAO

LBBB Left bundle branch block

## List of Abbreviations (Cont.)

LV : Left ventricle

LVEDD : LV end-diastolic dimensions
LVEDV : LV end-diastolic volumes
LVESD : LV end-systolic dimensions
LVESV : LV end-systolic volumes
LVP : Left ventricular pressure

LVPEP : Left-ventricular pre-ejection period

MADIT-CRT: Multicenter Automatic Defibrillator

Implantation Trial with Cardiac

**Resynchronization Therapy** 

MIRACLE: Multicenter Insync Randomized Clinical

Evaluation

ms : Milliseconds

MUSTIC : Multisite Stimulation in Cardiomyopathies

Study

NYHA : New York Heart AssociationOMT : Optimal medical therapy

PATH-CHF: Pacing Therapies In Congestive Heart

Failure

RAFT : Resynchronization/ Defibrillation for

Ambulatory Heart Failure Trial

RV : Right ventricle

RVPEP : Right-ventricular pre-ejection period

SPECT/PET: Single-photon emission computed

tomography/ positron emission tomography

SPWMD : Septal-to-posterior wall motion delay

TDI : Tissue Doppler imaging

TMPG : Trans-mitral pressure gradientTSI : Tissue synchronization imagingTSI : Tissue synchronization imaging

VF : Ventricular fibrillation

VT : Ventricular tachyarrhythmias

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