

# Contents

---

## Introduction

X. LUCAYA . . . . .	1
---------------------	---

## 1 Cardiac Multislice CT

LUCIO T. PADILLA, M. AGUSTINA SCIANCALEPORE, and SANTIAGO ROSSI (Contributors) . . . . .	5
<b>Case 1.1</b> Bicuspid Aortic Valve and Coronary Artery Disease . . . . .	6
<b>Case 1.2</b> MSCT for the Assessment of Aortic Coarctation. . . . .	8
<b>Case 1.3</b> Follow-Up of Coronary Aneurysm Post Pharmacological Stent Implantation . . . . .	10
<b>Case 1.4</b> Imaging Integration in Coronary Artery Disease . . . . .	12
<b>Case 1.5</b> Cath Laboratory Planning . . . . .	14
<b>Case 1.6</b> MSCT and Left Main Coronary Artery Stenting Evaluation . . .	16
<b>Case 1.7</b> Stent Evaluation . . . . .	18
<b>Case 1.8</b> Coronary Anomalies . . . . .	20
<b>Case 1.9</b> Stent Fracture . . . . .	22
<b>Case 1.10</b> MSCT Presurgical Aortic Valve assessment . . . . .	24
<b>Case 1.11</b> MSCT Coronary Assessment Prior to Mitral Valve Surgery. . . .	26
<b>Case 1.12</b> Coronary Total Occlusion: Preintervention Assessment . . . . .	28
<b>Case 1.13</b> Utility of MSCT in Acute Coronary Syndrome . . . . .	30
<b>Case 1.14</b> Accuracy of MSCT for Assessment of Coronary Artery Disease . . . . .	32
<b>Case 1.15</b> MSCT Post-Coronary Bypass Surgery Evaluation. . . . .	34
<b>Further Reading</b> . . . . .	36

## 2 Echocardiography

PAOLA KUSCHNIR GUSTAVO AVEGLIANO, MARCELO TRIVI, and RICARDO RONDEROS (Contributors) . . . . .	39
<b>Case 2.1</b> Apical Myocardial Hypertrophy . . . . .	40
<b>Case 2.2</b> Severe Mitral Insufficiency Secondary to Papillary Muscle Rupture . . . . .	42
<b>Case 2.3</b> Noncompacted Cardiomyopathy . . . . .	44
<b>Case 2.4</b> Right Atrial Tumor. . . . .	46
<b>Case 2.5</b> Lateral Left Ventricular Wall Rupture Following Acute Myocardial Infarction. . . . .	48
<b>Case 2.6</b> Traumatic Rupture of the Tricuspid Valve . . . . .	50
<b>Case 2.7</b> Complicated Type B Aortic Dissection . . . . .	52
<b>Case 2.8</b> Aortic Mobile Thrombosis . . . . .	54
<b>Case 2.9</b> Severe Mitral Insufficiency Secondary to Rupture of Posterior Leaflet. . . . .	56

---

Case 2.10 Endomyocardial Fibrosis Secondary to a Hypereosinophilic Syndrome . . . . .	58
Case 2.11 Tako-Tsubo Syndrome . . . . .	60
Case 2.12 Rheumatic Mitral Stenosis . . . . .	62
Case 2.13 Atrial Septal Defect and Stroke . . . . .	64
Case 2.14 Percutaneous Closure of Severe Paravalvular Leak . . . . .	66
Case 2.15 Aortic Root Pseudoaneurysm Following Bentall Procedure . . . . .	68
Further Reading . . . . .	70

### 3 Cardiac Magnetic Resonance

JOAN C. VILANOVA, ANTONIO LUNA, MANEL MORALES, XAVIER ALBERT, JOAQUIM BARCELÓ, and RAMÓN RIBES . . . . .	75
Case 3.1 Ebstein Malformation . . . . .	76
Case 3.2 Ablation for Ventricular Tachycardia . . . . .	78
Case 3.3 Dilated Cardiomyopathy . . . . .	80
Case 3.4 Interventricular Communication, Bicuspid Aortic Valve, and Aortic Coarctation . . . . .	82
Case 3.5 Noncompaction Cardiomyopathy . . . . .	84
Case 3.6 Supravalvular Pulmonary Stenosis . . . . .	86
Case 3.7 Agenesis of the Pericardium . . . . .	88
Case 3.8 Left Ventricular Hypertrophic Cardiomyopathy . . . . .	90
Case 3.9 Left Ventricular Hypertrophy and Noncompaction Cardiomyopathy . . . . .	92
Case 3.10 Arrhythmogenic Right Ventricular Dysplasia . . . . .	94
Case 3.11 Nonviable Myocardium After Acute Myocardial Infarction . . . . .	96
Case 3.12 Viable Myocardium After Acute Myocardial Infarction . . . . .	98
Case 3.13 Double Aortic Lesion . . . . .	100
Case 3.14 Aneurysmal Dilatation of the Pulmonary Artery . . . . .	102
Case 3.15 Acute Myocarditis . . . . .	104
Case 3.16 Aortic Coarctation . . . . .	106
Case 3.17 Aortic Thrombus . . . . .	108
Case 3.18 Chiari Network . . . . .	110
Case 3.19 Ischemic Dilated Cardiomyopathy . . . . .	112
Case 3.20 Hematogenous Cardiac Metastasis . . . . .	114
Case 3.21 Pericardial Cyst . . . . .	116
Case 3.22 True Ventricular Apical Aneurysm of Ischemic Origin Associated to Acute Thrombus . . . . .	118
Case 3.23 Cardiac Amyloidosis . . . . .	120
Case 3.24 Fontan Conduit Evaluation . . . . .	122
Further Reading . . . . .	124

### 4 Nuclear Cardiology

JOSÉ MANUEL JIMÉNEZ-HOYUELA GARCÍA SIMEÓN ORTEGA LOZANO, DOLORES MARTÍNEZ DEL VALLE TORRES, ANTONIO GUITIÉRREZ CARDO, and ESPERANZA RAMOS MORENO . . . . .	127
Case 4.1 Left Bundle-Branch Block (LBBB) . . . . .	128
Case 4.2 Breast Attenuation . . . . .	130
Case 4.3 Diaphragmatic Attenuation . . . . .	132
Case 4.4 Inducible Ischemia in the CX Territory . . . . .	134

---

<b>Case 4.5</b>	Infarct with Residual Ischemia. . . . .	136
<b>Case 4.6</b>	Ischemia in the Ada Territory . . . . .	138
<b>Case 4.7</b>	Ischemia in the Right Coronary Artery Territory. . . . .	140
<b>Case 4.8</b>	Infarct in the Apex and Anteroinferior Apical Segments Without Residual Ischemia. Inducible Ischemia in the Inferolateral Side. . . . .	142
<b>Case 4.9</b>	Multivessel Disease . . . . .	144
<b>Case 4.10</b>	Stunned Myocardium . . . . .	146
<b>Further Reading</b>	. . . . .	148

---



<http://www.springer.com/978-3-540-79082-2>

Learning Cardiac Imaging

Ribes, R.; Kuschnir, P.; Luna, A.; Vilanova, J.C.;

Jimenez-Hoyuela, J.M. (Eds.)

2010, XIV, 151 p. 223 illus., 80 illus. in color., Softcover

ISBN: 978-3-540-79082-2