

Contents

List of Contributors, vii

Preface, ix

Part I Basics of hemodynamics

- 1** Introduction to basic hemodynamic principles, 3
James E. Faber PhD, George A. Stouffer MD
- 2** The nuts and bolts of right heart catheterization
and PA catheter placement, 17
Vickie Strang RN
- 3** Normal hemodynamics, 37
*Alison Keenon BS, Eron D. Crouch MD, James E. Faber PhD,
George A. Stouffer MD*
- 4** Arterial pressure, 57
George A. Stouffer MD
- 5** The atrial waveform, 67
David P. McLaughlin MD, George A. Stouffer MD
- 6** Cardiac output, 81
Frederick M. Costello MD, George A. Stouffer MD
- 7** Detection, localization, and quantification of intracardiac shunts, 89
Frederick M. Costello MD, George A. Stouffer MD

Part II Valvular heart disease

- 8** Aortic stenosis, 101
David P. McLaughlin MD, George A. Stouffer MD
- 9** Mitral stenosis, 113
Robert V. Kelly MD, Chadwick Huggins MD
- 10** Aortic regurgitation, 125
George A. Stouffer MD

iv Contents

11 Mitral regurgitation, 135
Robert V. Kelly MD, Mauricio G. Cohen MD

12 The tricuspid valve, 145
David A. Tate MD

Part III Cardiomyopathies

13 Hypertrophic cardiomyopathy, 155
Jayadeep S. Varanasi MD, George A. Stouffer MD

14 Heart failure, 169
Steven Filby MD, Patricia P. Chang MD

15 Restrictive cardiomyopathy, 179
David P. McLaughlin MD, George A. Stouffer MD

Part IV Pericardial disease

16 Constrictive pericarditis, 185
David P. McLaughlin MD, George A. Stouffer MD

17 Cardiac tamponade, 197
Siva B. Mohan MD, George A. Stouffer MD

18 Effusive—constrictive pericarditis, 209
Eric M. Crespo MD, Sidney C. Smith MD

Part V Miscellaneous

19 Right ventricular myocardial infarction, 215
Robert V. Kelly MD, Mauricio G. Cohen MD

20 Pulmonary hypertension, 223
Daniel Fox BS, David P. McLaughlin MD, George A. Stouffer MD

21 Coronary hemodynamics, 233
David P. McLaughlin MD, Samuel S. Wu MD, George A. Stouffer MD

22 Hemodynamics of intra-aortic balloon counterpulsation, 245
Richard A. Santa-Cruz MD

23 Arrhythmias, 255
Lukas Jantac MD, George A. Stouffer MD

24 Hemodynamics of pacemakers, 265
Rodrigo Bolanos MD, Kimberly A. Selzman MD

25 Unknowns, 275
George A. Stouffer MD

Appendices, 289

Index, 295

