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Titolo	Autonomic Innervation of the Heart [[electronic resource] ] : Role of Molecular Imaging // edited by Riemer H.J.A. Slart, René A. Tio, Philip H. Elsinga, Markus Schwaiger
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Descrizione fisica	1 online resource (469 p.)
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Soggetti	Radiology Nuclear medicine Cardiology Diagnostic Radiology Nuclear Medicine
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- Autonomic nervous system of the heart -- Pathophysiology of the autonomic nervous system of the heart -- Tracers for Presynaptic Cardiac Innervation -- Tracers of Adrenergic Receptors -- Tracers of the Parasympathetic System -- Radiopharmaceuticals production under GMP -- Physics of PET-CT and SPECT-CT -- Kinetics & software PET -- SPECT-CT imaging of autonomic innervation in heart diseases -- PET-CT imaging of autonomic innervation in heart diseases -- Imaging ischemic heart disease -- Imaging diabetes mellitus -- Imaging heart failure -- Imaging amyloidosis -- Imaging heart transplantation -- Imaging ventricular arrhythmias -- Guided therapy & imaging -- Imaging the functional brain-heart axis: neurodegenerative diseases -- Imaging the functional brain-heart axis: mental stress & anxiety -- Imaging

cardiotoxicity: the effects of chemo- and mono-clonal antibody therapy on autonomic innervation -- Imaging cardiotoxicity: the effect of radiotherapy on autonomic innervation -- Summary and Future Perspectives: PET-MRI Imaging of cardiac Innervation, fluorescence imaging of cardiac innervation -- Epilog -- Index.

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Sommario/riassunto

This book explains in detail the potential value of the hybrid modalities, SPECT-CT and PET-CT, in the imaging of cardiac innervation in a wide range of conditions and diseases, including ischemic heart disease, diabetes mellitus, heart failure, amyloidosis, heart transplantation, and ventricular arrhythmias. Imaging of the brain-heart axis in neurodegenerative disease and stress and of cardiotoxicity is also discussed. The roles of the various available tracers are fully considered, and individual chapters address radiopharmaceutical development under GMP, imaging physics, and kinetic modeling software. Highly relevant background information is included on the autonomic nervous system of the heart and its pathophysiology, and in addition future perspectives are discussed. Awareness of the importance of autonomic innervation of the heart for the optimal management of cardiac patients is growing, and there is an evident need for objective measurement techniques or imaging modalities. In this context, Autonomic Innervation of the Heart will be of wide interest to clinicians, researchers, and industry.

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