

HIV Infection and the Cardiovascular System

Michael Fischl and Robert J. Ross

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Abstract

Better treatment and supportive care are prolonging the lives of patients with HIV, which is resulting in a higher prevalence of long-term effects of HIV. Autopsy and echocardiography studies suggest frequent involvement of the heart in advanced stages of HIV infection. The most common cardiac manifestations of HIV are dilated cardiomyopathy, myocarditis, coronary arteriosclerosis, atherosclerotic effusions, endocarditis, HIV-associated malignant neoplasms, and drug-related cardiomyopathy. Highly active antiretroviral therapy (HAART) has prolonged many patients' lives, but many clinical questions on HIV are not answered by HAART and remain to be developed even with treatment. In addition, HAART itself may be associated with an increase in atherosclerotic artery and secondary safety concerns. Thus, we focus on the most recent knowledge about HIV-associated cardiovascular disease. Careful cardiovascular evaluation is the source of HIV disease and identify earlier complications early enough to treat. In addition, the study of HIV-related cardiovascular disease may shed light on the mechanisms of non-HIV-related cardiovascular disease.

Key words

AIDS, Coronary heart disease, Cardiovascular disease, Antiretroviral therapy, Cardiomyopathy, Myocarditis

Introduction

Advances in the cardiovascular medicine have transformed a 20-year-old disease and infection to a chronic condition. Patients from the year 1980 when were treated for opportunistic and bacterial HIV infection to death or with prolonged use of AZT (Zidovudine) lived longer than the "untreated" untreated patients. Furthermore, recently, patients receiving anti-

HIV treatment appear to report not using intravenous drug use.

The management of highly active antiretroviral therapy (HAART) is revolutionizing medicine and the course of the disease. With longer and prolonged treatment lasting years, HAART seems to be the new way to treat HIV. Patients receive more an increase in life span and more long-term survival with a HAART. A variety of cardiovascular diseases have been published in the past 10 years. However, the cardiovascular disease and therapy antiretroviral treatment is not clear. The HIV-related cardiomyopathy, atherosclerotic disease, and prolonged immunosuppression

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Hiv Infection And The Cardiovascular System

Jamie B. Conti



Hiv Infection And The Cardiovascular System:

HIV Infection and the Cardiovascular System G. Barbaro, J. S. Borer, 2003-07 Past studies revealed that HIV infection may implicate diverse cardiac diseases such as cardiomyopathy coronary heart disease cardiac neoplasms endocarditis or pericarditis In addition it was found that highly active antiretroviral therapy HAART often causes as an adverse effect a metabolic syndrome characterized by lipodystrophy lipoatrophy dyslipidemia and insulin resistance leading to an increase in coronary artery disease and stroke This book focuses on the most recent findings in HIV associated heart disease and HAART associated metabolic and cardiovascular complications In a first part the epidemiology pathogenesis and molecular biology of HIV associated cardiovascular disease pulmonary hypertension lipodystrophy and HAART associated metabolic syndrome are reviewed The second part offers clinical and therapeutic insights into HIV HAART associated atherosclerosis coronary heart disease stroke vasculitic syndromes and pulmonary hypertension Besides cardiovascular complications in HIV infected children cardiac surgery in HIV infected patients and the prevention and management of HAART associated cardiovascular complications are points under discussion Finally the interaction between HAART and drugs commonly used to treat cardiovascular disease is carefully analyzed HIV Infection and the Cardiovascular System presents state of the art findings of basic and clinical scientists and is a valuable reference for specialists in cardiology and internal medicine as well as for infectiologists

Infections and the Cardiovascular System I.W. Fong, 2006-04-11 Infectious agents have been recognized to involve the heart and vascular system for well over a century Traditional concepts and teachings of their involvement in the pathogenesis of disease have been by a few established mechanisms Since the last decade of the 20th century there has been renewed interest in the medical and public media on infectious diseases affecting the cardiovascular and cerebrovascular systems through their relationship with the development of acceleration of atherosclerosis This volume highlights and reviews new perspectives of infections on the cardiovascular system as never before It is a truly valuable resource for scientists researchers residents and fellows in the fields of infectious disease cardiology and microbiology

Cardiovascular Disease in AIDS Giuseppe Barbaro, Franck Boccara, 2009-04-01 This book focuses on some of the new clinical and biological insights related to HIV associated metabolic and cardiovascular complications in the HAART era The introduction of highly active antiretroviral therapy HAART has altered cardiovascular manifestations in HIV On the one hand HAART has significantly improved the quality of life of HIV infected patients On the other hand the early data have raised some concerns creating an intriguing clinical scenery

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approach treatment options and clinical outcomes of patients presenting with COVID 19 and cardiac involvement Elucidates new and emerging options to treat this disease process Provides concise well validated published data available in one single resource

Cardiovascular Care in Patients With HIV Merle Myerson, Marshall J. Glesby, 2019-03-15 This book provides the most current overview of the evaluation and management of cardiovascular disease in people living with HIV AIDS The text assesses the risk factors associated with cardiovascular disease in HIV AIDS patients and explores the most cutting edge ways to diagnose and treat the specific diseases that are most common for people living with HIV This text takes a well rounded multidisciplinary approach that considers infectious disease and HIV specialists who may have little familiarity with the diagnosis and management of manifest CVD or risk factors as well as those in remote areas where providers may have little or no infrastructure to support optimal care for their patients The text also serves cardiovascular specialists who may not have the expertise in HIV care to meet the unique needs of these patients Cardiovascular Care for the Patient Living with HIV is the ultimate resource for not only all infectious disease and HIV specialists but also for cardiologists neurologists vascular surgeons general practitioners nurse practitioners physician s assistants and all other medical professionals who care for people living with HIV

Alcohol, Nutrition, and Health Consequences Ronald Ross Watson, Victor R. Preedy, Sherma Zibadi, 2012-08-24 Chronic alcohol use is associated with heart liver brain and other organ pathology Alcohol is a drug of abuse and a caloric food and it causes poor intake and absorption of nutrients thus playing a major role in many aspects of clinical consequences Alcohol use lowers consumption of fruit and vegetables lowers tissue nutrients and in some cases requires nutritional therapy by clinicians Alcohol Nutrition and Health Consequences will help the clinician define the causes and types of nutritional changes due to alcohol use and also explain how nutrition can be used to ameliorate its consequences Chapters present the application of current nutritional knowledge by physicians and dietitians Specific areas involving alcohol related damage due to nutritional changes are reviewed including heart disease obesity digestive tract cancers lactation brain function and liver disease In addition alcohol s effects on absorption of minerals and nutrients a key role in causing damage are treated The importance of diet in modifying alcohol and its metabolite damage is also explained Alcohol Nutrition and Health Consequences is essential reading for alcohol therapists and researchers as well as primary care physicians and dietitians and is an easy reference to help the clinician student and dietitian comprehend the complex changes caused by direct and indirect effects of ethanol at the cellular level via its nutritional modification

Braunwald's Heart Disease E-Book Douglas L. Mann, Douglas P. Zipes, Peter Libby, Robert O. Bonow, 2014-07-30 Ideal for cardiologists who need to keep abreast of rapidly changing scientific foundations clinical research results and evidence based medicine Braunwald s Heart Disease is your indispensable source for definitive state of the art answers on every aspect of contemporary cardiology helping you apply the most recent knowledge in personalized medicine imaging techniques pharmacology interventional cardiology electrophysiology and much more Practice with confidence and overcome your

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PACES for the MRCP Tim Hall, 2013-09-17 The 3rd edition of PACES for the MRCP has been fully revised and updated throughout to retain its pole position as the textbook to accompany core medical training CMT and prepare candidates for success in the Practical Assessment of Clinical Examination Skills and a future specialty career Features Fully revised for the new Station 5 and completely updated throughout Promotes understanding and deeper learning of modern medicine applicable to PACES and the specialist registrar Emphasis on clinical assessment history taking examination and communication skills equipping candidates with appropriate differential diagnoses from which to develop the right diagnosis Encourages candidates to question why a diagnosis has arisen and consider its consequences For example Heart failure is not a diagnosis until a candidate has considered the differential diagnoses of breathlessness and decided why heart failure is most likely and then considered its cause not always ischaemic heart disease its presentation acute chronic left or right ventricular or both and most importantly the effects of it and its treatments on a patient's life This 3rd edition of PACES for the MRCP continues to provide fully revised up to date evidence based coverage of investigations and treatments Whilst the emphasis of PACES is on clinical skills candidates who understand when for example a patient with rheumatoid arthritis might benefit from a biologic agent and how this will influence inflammatory disease is better equipped for success A one volume text giving candidates complete preparation for the PACES exam within one portable volume 250 cases organised into the 5 stations of the PACES exam respiratory and abdominal system history taking cardiovascular and nervous system communication and ethics and skin locomotion eyes and endocrine systems Engaging question and answer approach at the end of each case excellent preparation for the exam Boxed tips highlight vital information helps identify what is most important to remember Fully revised for the new Station 5 and completely updated throughout

Cardiology Secrets: First South Asia

Edition-E-Book Glenn N. Levine,2017-08-14 For more than 30 years The Secrets Series has provided students and practitioners in all areas of health care with concise focused and engaging resources for quick reference and exam review Cardiology Secrets First South Asia Edition features the Secrets popular question and answer format that also includes lists tables and an easy to read style making reference and review quick easy and enjoyable The Secrets Series format gives you the most return for your time concise easy to read engaging and highly effective now with an improved organization that makes information even easier than ever to find Written by global experts and thought leaders in cardiovascular disease Top 100 Secrets and Key Points boxes provide a fast overview of the secrets you must know for success in practice Portable size makes it easy to carry with you for quick reference or review anywhere anytime Cardiology Secrets E-Book Glenn N. Levine,2017-03-04 For more than 30 years The Secrets Series has provided students and practitioners in all areas of health care with concise focused and engaging resources for quick reference and exam review Cardiology Secrets 5th Edition features the Secrets popular question and answer format that also includes lists tables and an easy to read style making reference and review quick easy and enjoyable The Secrets Series format gives you the most return for your time concise easy to read engaging and highly effective now with an improved organization that makes information even easier than ever to find Written by global experts and thought leaders in cardiovascular disease Top 100 Secrets and Key Points boxes provide a fast overview of the secrets you must know for success in practice New dedicated sections on peripheral vascular and cerebrovascular disease venous thromboembolic disease and specific populations and conditions plus a dedicated chapter on new direct oral anticoagulant agents New chapters added on hypercoagulability states specific valvular lesions sleep apnea and the heart heart disease in women cardio oncology cardiac arrest transcatheter aortic valve replacement TAVR carotid artery disease and hemorrhagic stroke Several hundred illustrations figures and flow diagrams 100 are new Expert Consult™ eBook version included with purchase This enhanced eBook experience allows you to search all of the text figures Q As and references from the book on a variety of devices **The AHA Clinical Cardiac Consult** J. V. Nixon,2010-10-18 The ideal source of fast reliable guidance on diagnosis and management of both common and rare cardiovascular problems this handbook covers more than 170 problems diseases syndromes and chief complaints in the popular easy to read two page 5 Minute Consult format **The Netter Collection of Medical Illustrations: Cardiovascular System** Jamie B. Conti,2014-02-03 View the cardiovascular system as only Netter images can depict it This spectacularly illustrated volume part of the masterwork known as the Netter CIBA Green Books provides a highly visual guide to the heart from basic science anatomy and physiology to pathology and injury This classic Netter reference has been updated to mirror the many exciting advances in cardiovascular medicine and imaging offering unparalleled insights into anatomy physiology and clinical conditions Consult this title on your favorite e reader conduct rapid searches and adjust font sizes for optimal readability Compatible with Kindle nook and other popular devices Gain a rich clinical view of all aspects of the cardiovascular system in

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