

Hongjun Li
Editor

Radiology of Parasitic Diseases

A Practical Approach

 Springer

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Foreword One



Jianping Dai
Vice President of Chinese Medical Association
On July 15, 2015

The expansive territory and complex climate and geological environment have bred numerous types of parasitosis in China, which is one of the countries subject to severe epidemics of parasitosis. Besides, parasitosis has remained as a major long-term public health concern in China. Along with the progress of globalization and economic integration and rocketing development of science and technology, the ongoing profound changes of human living environment and behaviors exert tremendous impacts on the occurrence and prevalence of infectious diseases, which is characterized by continual emergence of new infectious diseases and recurrence of traditional infectious diseases, posing threats to human beings. As the morbidity or mortality of patients with parasitosis is primarily associated with complications, early diagnosis and differential diagnosis of complications is key to the survival quality and term of patients with parasitosis. Meanwhile, an important link of complication diagnosis and differential diagnosis is imaging examinations.

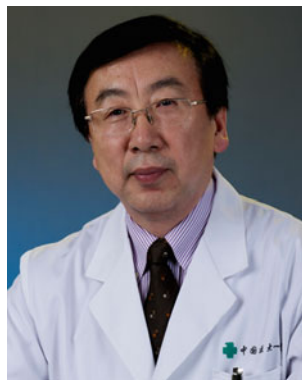
At present, Prof. Li has led to publish the Practical Radiology of Infectious Diseases (English and Chinese version). Under the requirements of readers and clinical demands, Prof. Li pooled together nationwide experts and clinical resources to compile the Radiology of Parasitosis, which presents a more detailed introduction of the fundamental radiological theories and typical cases of various parasitotic diseases.

From conception to completion of the manuscript, members of editorial board have been trained for three times, and a special team was convened and dedicated to compilation and composition. Lasting over 2 years, this book encompasses two parts, with ten chapters, over 300,000 characters and 500 figures. The concise, well-structured, and systematic knowledge is reader friendly, with convenience for searching and reading. It well demonstrates the primary characteristics of radiology of parasitosis, providing valuable

guidance for diagnosis of parasitosis-associated diseases and efficacy evaluation. All the firsthand data in the book lay a solid foundation for further research in radiology of parasitosis. This treatise opens up a new area, serves as a complement for medical radiology of China, and also offers an essential reference for prevention, medical treatment, and researches in this field.

I feel much honored to compose this foreword since this book incorporates great endeavors and wisdom of the author, with comprehensive and systematic contents as well as a highly readable style. I believe this book will improve the public cognition to parasitosis, facilitate academic communication and exchanges, as well as press ahead the cause of prevention and treatment of parasitosis.

Foreword Two



Ke Xu

Director, Medical Imaging Research Institute
of China Medical University
Director membership, Society of Radiology
of Chinese Medical Association
On July 16, 2015

Around the world, parasitic diseases not only undermine the health and life quality of patients but also incur tremendous losses to social economic development. However, despite the current rapid development of radiological techniques and continuous advent of new methods and theories, there is no treatise on comprehensive and systematic illustration of imaging changes of parasitotic diseases, which does not reflect the significance of imaging to diagnosis of parasitosis, and application of latest and most advanced radiological techniques to diagnosis of parasitosis. On such accounts, Prof. Li, together with professors from departments of medical radiology of dozens of hospitals in China, integrated multicenter resources and systematically summarized the spectrum of parasitic diseases to jointly compile this book, *Radiology for Parasitosis*, which will fill the blank of radiology for parasitosis at domestic or abroad. Proceeding from disease cases, this book describes the etiology, pathology, clinical manifestations, imaging presentations, and differential diagnosis of each disease and makes commentaries based on the experience of the author. This monography aims to comprehensively and systematically elaborate the imaging changes of common parasitotic diseases and relevant complications so as to provide guidance and reference for department of radiology and clinical physicians.

This book comprises two parts with ten chapters, about 300,000 characters and over 500 images in an informative and reliable style. I wish and believe that the publication of this book will actively promote the treatment and prevention of parasitotic diseases and the cause of radiology.

Foreword Three



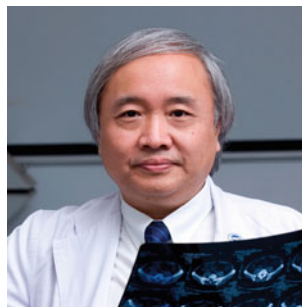
Xiaoyuan Feng
Chief Editor Chinese Journal of Radiology
Former direct member, Society of Radiology
of Chinese Medical Association
On July 16, 2015

The expansive territory and complex climate and geological environment have bred numerous types of parasitosis in China, which is one of the countries subject to severe epidemics of parasitosis. Besides, parasitosis has remained as a major long-term public health concern in China. Along with the progress of globalization and economic integration and rocketing development of science and technology, the ongoing profound changes of human living environment and behaviors exert tremendous impacts on the occurrence and prevalence of infectious diseases, which is characterized by continual emergence of new infectious diseases and recurrence of traditional infectious diseases, posing threats to human beings. As the morbidity or mortality of patients with parasitosis is primarily associated with complications, early diagnosis and differential diagnosis of complications is key to the survival quality and term of patients with parasitosis. Meanwhile, an important link of complication diagnosis and differential diagnosis is imaging examinations.

From conception to completion of the manuscript, lasting over 2 years, a special team was convened and dedicated to compilation of relevant domestic and foreign resources and composition. This book encompasses two parts, with ten chapters, over 300,000 characters and 500 figures. The contents cover fundamental theories of parasitosis and radiology for special diseases, which is typical of case-based introduction and discussion, with convenience for searching and reading. This book displays the primary radiological characteristics of parasitosis, which is highly valuable for diagnosis of parasitotic diseases and efficacy evaluation.

Radiology for Parasitosis presents a new vision for domestic and foreign clinical and imaging counterparts and expands a new area for medical radiology, which complements and improves current medical radiology of China, and is a critical reference book for prevention, treatment, and researches of parasitosis. I am very gratified about the efforts and achievement of Chinese scholars in radiology of parasitosis and honored to write this foreword.

Foreword Four



Zhengyu Jin
Director membership, Society
of Radiology of Chinese Medical Association
On July 16, 2015

Parasitic diseases are infectious diseases caused by parasites latent in human and animal bodies and are widely distributed, diverse, and greatly detrimental. Parasitic diseases have remained as a common public health concern around the world.

In light of the concepts of evidence-based medicine, imaging examination is an important method for diagnosis of parasitotic diseases and efficacy evaluation and is an essential link to enhance the outcomes of prevention and treatment of infectious diseases.

Currently, despite the current rapid development of radiological techniques and continuous advent of new methods and theories, there is no treatise on comprehensive and systematic illustration of imaging changes of parasitotic diseases, which does not reflect the significance of imaging to diagnosis of parasitosis, and application of latest and most advanced radiological techniques to diagnosis of parasitosis. On such accounts, Prof. Li, together with professors from departments of medical radiology of dozens of hospitals in China, integrated multicenter resources and systematically summarized the spectrum of parasitic diseases to jointly compile this book, *Radiology for Parasitosis*. Proceeding from disease cases, this book describes the etiology, pathology, clinical manifestations, imaging presentations, and differential diagnosis of each disease and makes commentaries based on the experience of the author. This monography aims to comprehensively and systematically elaborate the imaging changes of common parasitotic diseases and relevant complications so as to provide guidance and reference for department of radiology and clinical physicians.

This book encompasses two parts, with ten chapters, over 300,000 characters and 500 figures. The well-structured contents are user friendly, which is convenient for reading and searching. This monography exploits a new area for Chinese medical radiology and is a complement and improvement of current medical radiology, which is highly significant. It is also an important reference book for prevention, treatment, and research of parasitic diseases.

A handwritten signature in black ink, enclosed in a rectangular box. The signature is stylized and appears to be the name 'Zhengyu Jin' in Chinese characters.

Preface

Radiology for parasitosis is a discipline that studies the imaging characteristics and evolution patterns of infectious diseases induced by protozoa, helminth, arthropods and annelids, and mollusk lurking in human bodies.

The expansive territory and complex climate and geological environment have bred spawned numerous types of parasitosis in China, which is one of the countries subject to severe epidemics of parasitosis. Besides, parasitosis has remained as a major long-term public health concern in China. Along with the progress of globalization and economic integration and rocketing development of science and technology, the ongoing profound changes of human living environment and behaviors exert tremendous impacts on the occurrence and prevalence of infectious diseases, which is characterized by continual emergence of new infectious diseases and recurrence of traditional infectious diseases, posing threats to human beings. Prevention and treatment of infectious diseases once ignored are now coming to limelight. Since the lethal causes of patients with infectious disease are closely associated with occurrences of complications, early diagnosis and differential diagnosis of complications are critical to the life quality and survival of patients. Meanwhile, as primary methods for diagnosis and differentiation of complications, imaging examinations such as CT, X-ray, and MR play vital roles in prevention and treatment of parasitic diseases. Lack of systematic theories, technical standards, and diagnostic guides of radiology for parasitosis as well as the urgent clinical demands underpin the researches and compilation of this book.

Moreover, popularization of knowledge about radiology for parasitosis has not already only confined to special hospitals of infectious diseases, but the departments of radiology in comprehensive hospitals also confront the need of popularization of the knowledge of a new discipline—radiological diagnosis and differential diagnosis of infectious diseases.

However, systematic studies about clinical radiology of parasitosis are still absent around the world, and no systematic theoretical standards guide clinical practices. The previous sporadic valuable data, whether lost or scattered, need to be collected, summarized, analyzed, and compiled to fill the blankness of radiology for parasitosis in systematic theories, which will promote standardized diagnosis of parasitosis-associated complications, enhance knowledge of diagnosis and differentiation of parasitosis complications, and boost the effects of prevention and treatment of complications related to infectious diseases. It is of great significance for elevating the life quality and survival of patients with infectious diseases. Based on a multi-center study integrating nationwide experts and clinical resources, the author compiles this landmark monograph about clinical imaging of parasitosis, which fills the blank of the systematic blank of imaging about parasitosis and enriches medical imaging.

Moreover, this monograph incorporates the format styles of both Chinese and Western books, which includes large quantities of classical cases and highlights key points with arguments and text along with abundant pictures.

Major features: This book is composed of two parts, including ten chapters with over 500 images. It is close to clinics and of high practical and reference value, which is suitable to healthcare professionals at all levels. 95% imaging materials are firstly displayed and boast independent and complete intellectual property rights.

The publication of this book consolidates the foundation for clinical imaging of parasitosis and exploits a new area.

The academician Liu Yuqing, a pioneer in radiology in China, is very gratified about the publications of the serial monographs about infectious disease imaging by Prof. Li Hongjun and indicated that such academic achievements represent great advances of infectious disease imaging in China, usher in a new area, and enrich medical radiology.

There might exist some errors in this book and your kindly comments are highly appreciated for the improvement of this book.

The compilation of this book is sponsored by clinical medicine development special fund of Beijing Municipal Administration of Hospitals (project No.: ZYLY201511).

Brief Introduction

Parasitic diseases are caused by parasites that parasitize in humans and animals with worldwide distribution. The species of parasites are diverse and the parasitic diseases seriously threaten the health of humans and animals, which remain to be a common public health concern across the world. The research team led by Prof. Li Hongjun, the editor of this book, firstly and systematically summarized the parasitic diseases spectrum from the perspective of radiology. By screening over 100 classic cases with clinical and radiological diagnosis, contrast studies were performed by comparing their radiological and pathological data to unveil the pathological evolution and the nature of the diseases based on the radiological findings. The studies were intended to provide valuable diligent scientific reference for the diagnosis, treatment, control, and scientific research of parasitic diseases and their complications.

Instead of simply reviewing and introducing, we integrated reviews and case studies in this book. The readers will firstly read the basic theories with following illustrations by clinical classic cases. In such a way of reading, we expect a more favorable reading effect than atlas, reviews, and headline guides. The whole book consists of two parts with ten chapters. The first part is a general introduction, which elucidates such fundamental theories as the etiology, epidemiology, and imaging examination techniques of parasitic diseases. The second part focuses on specific diseases and falls into four individual chapters covering protozoal diseases, helminthiasis, nematodosis, and trematodiasis. Each chapter introduces relevant diseases which are expounded respectively by several cases. Each case comprises complete history of disease, laboratory tests results, pathological figures, and imaging data (ultrasound, X-ray, CT, and MRI). In addition, each case is characterized by comprehensive clinical data, classic radiological images, detailed differential diagnosis, and discussion, which unravels diagnosis of similar imaging signs.

This book is targeted at physicians at the department of radiology and clinical departments as well as medical students.

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