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Research and Reviews in Clinical Microbiology: Clinical Bacteriology-A Book Review

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Abstract Clinical microbiology is a vast subject that covers a wide range of sub categories that include clinical bacteriology, clinical virology, clinical mycology, and clinical parasitology. The present book is a compilation of both research and review pieces related to the field of clinical bacteriology.

Keywords: *clinical microbiology, research and reviews, clinical bacteriology*

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1. Book Review

This book is a systematic arrangement of research and review articles related to the field of clinical bacteriology. All the chapters were extensively peer-reviewed and can be a source of clear and valuable source of information to the readers. This book has twenty chapters covering various aspects of clinical bacteriology.

The first chapter deals with the importance of widal test in the diagnosis of typhoid fever caused by *Salmonella typhi*. The gold standard for the diagnosis of typhoid is the isolation of the bacteria from the clinical specimen (blood, stool, urine, etc.,) obtained from the patient. But in the resource poor settings where the culture is not possible, a diagnosis needs to be made only by the widal test. This chapter stresses the importance of diagnostic titre, which in most instances indicates infection.

The chapter two presents the microbiology of pyoderma, an infection of the skin and its appendages. It also identifies the efficacy of newer antimicrobial agents against the isolates of pyoderma in comparison to the traditionally used antibiotics. Tables representing the clinico-microbiological profiles and the antimicrobial susceptibility patterns will be of great value to the readers.

In chapter three, a case of most rare bacteria *Kingella kingae* causing urinary tract infection is presented. The chapter contains a brief history of the organism, its importance as potential pathogen, the case presentation, pictures of the bacterial growth on blood agar and the grams stain appearance which can be very important to the readers for the identification. Chapter four reviews the pathogenicity, virulence factors, clinical features, prevalence and colonization of *Kingella kingae*. It also highlights the determinants of colonization, invasive properties, microbiological characters, laboratory identification methods, antimicrobial susceptibility patterns and future perspectives on *Kingella kingae*.

Chapter five and six review the importance of human listeriosis. They present the epidemiology, clinical presentation, pathogenicity, virulence determinants, laboratory methods of identification, antimicrobial susceptibility patterns and the preventive and control measures. These chapter also highlight the importance of human listeriosis and the need for clinicians and clinical microbiologists to suspect and diagnose the infections. The chapter seven presents a rare case of human listeriosis presenting as breast abscess which was diagnosed by conventional methods.

Chapter seven presents the prevalence of *Staphylococcus aureus* (*S. aureus*) in the anterior nares of school going children. This study also delineates the procedure for performing the minimum inhibitory concentrations of the isolated *S. aureus* against vancomycin, ciprofloxacin, sparfloxacin, and sparfloxacin β cyclodextrin. Also, it presents the prevalence of methicillin resistant *S. aureus* (MRSA), and the detailed antimicrobial susceptibility profile of the isolated *S. aureus* using the conventional Kirby-Bauer disc diffusion method. Chapter nine reviews the importance for screening for vancomycin resistant *S. aureus*.

Chapter ten reviews the role of *Nocardia* and its clinical significance. It presents the laboratory methods for identification and antimicrobial chemotherapy against human nocardiosis. The chapter has an image showing acid-fast, long, branching filamentous bacilli in acid-fast stained smear of respiratory secretions.

Chapter eleven delineates the clinical significance of gram-positive bacilli morphologically resembling *Corynebacterium diphtheriae*. The non-diptheritic *Corynebacteria* or diphtheroids as they are commonly called, are normally ignored as normal human commensals and laboratory contaminants when isolated from human clinical specimens. This chapter tries to highlight the importance of non-diphtheritic *Corynebacterium* species

by including the infections caused by them, the laboratory diagnosis and antimicrobial susceptibility profiles.

Chapter twelve reviews the role of *Bacillus* species other than *Bacillus anthracis*. Clinical microbiology laboratories frequently isolate the *Bacillus* species from various human clinical specimens, and in most occasions, they are ignored as a laboratory contaminant. This chapter offers a valuable point of view in reporting such bacterial isolates.

Chapter thirteen concentrates on emphasizing the significance of anaerobic bacteria in human infectious diseases. This chapter reviews the methods of identification of anaerobic bacteria, their pathology, and therapeutic management of anaerobic bacterial infections. It also stresses on the need for further extensive studies on anaerobic bacteria to improve microbiologists understanding regarding their role in human infections.

Chapter fourteen presents a case of tuberculosis in a young patient. This case highlights the importance of inadequate treatment, reactivation of tuberculosis and emergence of multi-drug resistant *Mycobacterium tuberculosis*. Also, this chapter elaborates the role of clinical and laboratory diagnostic methods in the diagnosis of disseminated tuberculosis.

Chapters fifteen and sixteen review the role of *Kocuria* species in human infections using a case report. It presents the cultural characteristic features of *Kocuria* species along with pictures showing their growth on blood agar and typical grams stain appearance. This chapter also reviews the clinical profile (infections caused) of *Kocuria*, its laboratory identification methods, antimicrobial susceptibility profile and recent advances.

Chapter seventeen reviews the clinical importance of *Chyseomonas luteola*, which was previously called as *Pseudomonas luteola*. This chapter presents a confirmed case of Fournier's scrotal gangrene caused by *Chyseomonas luteola*. It also demonstrates the cultural characters including the images of morphology of colonies on blood agar and grams stain picture.

Chapters eighteen and nineteen review the role of group B *Streptococcus* (*Streptococcus agalactiae*), and a case of otogenic brain abscess caused by *Streptococcus* species respectively. Chapter eighteen stresses the importance of group B *Streptococcus*, although it is a normal flora of female genital tract. It also reviews the pathogenic potential, global epidemiology including the carriage rates in various geographical regions, and recommendation regarding the screening for colonization of group B *Streptococcus* especially among pregnant women.

Chapter twenty reviews the significance of scrub typhus caused by *Rickettsia tsutsugamushi* which is also called as *Orientia tsutsugamushi*. The chapter elaborates the patho-physiology of scrub typhus, which includes the life cycle of the mite in a pictorial representation. It also reviews the epidemiology, and laboratory methods for the identification of scrub typhus.

Over all this book could be of a great interest to the budding clinical microbiologists with its wide collection of both research and review pieces.

References

[1] Venkataramana Kandi. Research & Reviews in Clinical Microbiology: Virology and HIV Medicine. 2017, ISBN: 978-620-2-06195-7; Publisher: LAP LAMBERT Academic Publishing. Available online at www.morebooks.de; Amazon.