BOOK REVIEWS

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Cases in Medical Microbiology and Infectious Diseases

Third totally revised and updated edition. AMS (American Society for Microbiology) Press: Washington, D. C., 2003. XIV + 440 pages. Format 178 x 255 mm. Softcover. Price USD 49.95. ISBN 1-55581-207-4

The authors are affiliated with North Carolina and Boston University Schools of Medicine. As stated in the introduction, two events have spotlighted infectious diseases in the United States: an outbreak of West Nile virus encephalitis in New York City and the bioterrorism in the form of "anthrax" letters. The worldwide spread of HIV and AIDS as well as the increasing problem of antimicrobial drugs resistance continue to be major health problems.

The introductory chapter called "A Primer on the Laboratory Diagnosis of Infectious Disease" is intended to give an overview on application and effectiveness of different diagnostic approaches. Looked at are microscopic examinations used in clinical microbiology laboratory, including miscellaneous staining techniques, molecular methods describing nucleid acid hybridization, amplification assays – the most commonly used PCR, also the ligase chain reaction (LCR), the transcription mediated amplification (TMA) and the strand-displacement amplification (SDA), further on outlined are the detection of bacterial and fungal pathogens by culture on artificial media, and serologic tests. In the subsequent text 68 clinical cases are discussed. In seven sections attention is focused on genitourinary and respiratory tracts infections, gastrointestinal infections, skin and soft tissues infections, CNS and systemic infections, and emerging and reemerging infectious diseases. In the introduction of each book section there is a list of examined pathogenic organisms together with an overview of their pathogenic activities and spread/transmission.

Infectious agents encompass bacterial, fungal, rickettsial, spirochaetal, protozoan and helminhic pathogens. Bacterial infections embrace *Bordetella pertussis, Chlamydia trachomatis, Corynebacterium diphtheriae, Clostridium* spp., uropathogenic *Escherichia coli, Haemophilus influenzae, Legionella* spp., *Listeria monocytogenes, Mycobacterium tuberculosis, Neisseria gonorrhoeae, N. meningitidis, Nocardia* spp., a number of gastrointestinal and diarrheal pathogens, streptococci and staphylococci, and other species. Spirochaetal and rickettsial infections are represented by *Borrelia burgdorferi, Ehrlichia* spp., *Treponema pallidum* and *Rickettsia rickettsii.* Fungal infections incorporate some genera of dermatophytes, *Aspergillus* spp., *Blastomyces dermatitidis, Candida* spp., *Coccidioides immitis, Cryptococcus neoformans, Epidermophyton floccosum, Histoplasma capsulatum, Microsporum capsulatum, Trichophyton* spp., and other species. Viral infections comprise arthropod-borne viruses, echoviruses/coxsackieviruses, Epstein-Barr virus, filoviruses, hantaviruses, hepatitis viruses, cytomegalovirus, human herpesviruses, human immunodeficiency viruses, influenza viruses, polioviruses, rabiesvirus, the respiratory syncytial virus, rubella and rubeola viruses, varicella-zoster virus, and other viral pathogens. Parasitic infections include *Acanthamoeba* spp., *Babesia microti, Cryptosporidium parvum, Entamoeba histolytica, Leishmania donovani, Naegleria fowleri, Toxoplasma gondii, Trichomonas vaginalis,* malarial plasmodia, intestinal nematodes, tapeworms, *Pediculus* spp., *Phthirus pubis, Sarcoptes scabiei,* and other species.

Particular cases represent actual case histories the authors have encountered during their professional duties at two university teaching hospitals. Each case is accompanied by several questions to test knowledge in four broad areas: (1) the aetiologic agent´s characteristics and laboratory diagnosis; (2) pathogenesis and clinical presentation; (3) epidemiology; (4) prevention and, in some cases, drug treatment and resistance. The authors have incorporated also cellular microbiology into the case discussions. Each clinical case is concluded with a list of selected references. In addition, an extensive glossary of medical terminology induces students to the language of medicine with special regard to infectious diseases.

The volume is extensively illuminated by more than 100 mostly colour photographs. Featured are schematic line drawings, appearance of specific microorganisms in stained smears, colonial morphology in cultures on blood agar plates and other media, macroscopical parasites and vectors, petechial and other skin lesions, magneting resonance imaging and radiologic findings, diagnostic tests, and more. They provide important clues in helping to determine the aetiology it the patient´s infection. Detailed tabular summaries give excellent overviews of selected pathogens. A table of normal values is available inside the front cover of this volume.

In conclusion, this attractive and user-friendly publication presents a most informative companion to the traditional textbooks of infectious diseases. The authors offer in this volume a valuable tool for advanced and postgraduate students preparing for examinations - and during infectious diseases clinical practice. Also academic and medical professionals interested in infectious diseases, clinical microbiology and epidemiology will find this publication a serviceable resource.

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