

L. S. Garcia, D. A. Bruckner: Diagnostic Medical Parasitology. Second edition. American Society for Microbiology, Washington, D.C., 1993. 369 figs., 4 colour plates, 81 tables, 764 pp. List price 75.– USD, ASM Member price 65.– USD.

When I had asked my colleagues at one of the American universities, which modern textbook they could recommend me for university courses of medical parasitology, they recommended me this book. Immediately after I took it in my hands, I could see at first sight that the presented information could be up-to-date: on the cover there was a photograph of the recently emerging coccidian *Cyclospora cayetanensis*.

During the past 5 years, the field of diagnostic medical parasitology has seen some dramatic changes, including newly recognized parasites, alternative techniques, implementation of testing based on molecular techniques, and overall increased awareness of parasitic infection. The objective of authors was to provide the user with clear, concise, well-organized, clinically relevant, cost effective and practical quality procedures for use in clinical laboratory settings. They wanted to provide a comprehensive discussion of both aspects of the field of diagnostic medical parasitology: first, a comprehensive discussion of the individual parasites, and second, relevant diagnostic methods designed to detect and identify the organisms present. The effort of the authors met with success and a useful aid for laboratorians, physicians, other health care professionals as well as for students emerged.

The book consists of two parts: I. Clinically important human parasites, and II. Diagnostic procedures. Moreover, 7 very useful appendices enable quick orientation in diagnostics.

The organization of the first chapter is a compromise between the taxonomic and clinical approach. The first three chapters are devoted to the intestinal protozoa: amoebae (including *Blastocystis hominis*), flagellates and ciliates, coccidia and microsporidia. The chapter called "Protozoa from other body sites" deals with *Naegleria fowleri*, *Acanthamoeba* spp., leptomixid amoebae (later described as *Balamuthia mandrillaris*) and *Trichomonas vaginalis*. Tissue protozoa are represented by *Toxoplasma gondii* and *Pneumocystis carinii*, although the authors admit that *Pneumocystis* should be reclassified as ustomycetous red yeast. A special chapter is devoted to malaria and *Babesia* spp. Two extensive chapters deal with leishmaniasis and trypanosomiasis respectively. Helminthological part starts with three chapters on nematodes (intestinal, tissue and filarial), continues by two chapters on cestodes (intestinal and tissue: larval forms) and three chapters on trematodes (intestinal, liver and lung, blood: schistosomes). Short chapter called "Unusual parasitic infections" includes characteristics of helminths living in soil or parasitizing in various species of animals and occasionally appearing in humans. A special chapter called "Parasitic infections in the compromised host" discusses many opportunistic organisms that can cause disease in immunocompromised patients: *Entamoeba histolytica*, *Giardia lamblia*, *Pneumocystis carinii*, *Cryptosporidium parvum*, *Isospora belli*, microsporidia and *Strongyloides stercoralis*. Another special chapter called "Nosocomial and laboratory-acquired parasitic infections"

characterizes parasitic organisms that most often infect susceptible hosts during or after hospitalization. Besides all opportunistic parasites named in the previous chapter, some tropical protozoans (*Trypanosoma* spp., *Plasmodium* spp., *Babesia* spp.), some helminths (*Hymenolepis nana*, *Taenia solium*) and ectoparasites (*Pediculus* spp., *Phthirus pubis*, *Sarcoptes scabiei* /sic! – I do not understand the reason for this spelling – both old and modern publications in acarology use original spelling by Linné – *S. scabiei*). Also I do not understand, why the next two chapters "Serodiagnosis of parasitic diseases" and "Histologic identification of parasites" were situated into Part I and not logically among the diagnostic procedures in the second part. Apart of this fact, the first of them is very useful as a survey of tests for single parasitic diseases and the second one as an aid for quick orientation in staining techniques recommended for various parasites. However, black and white photographs cannot reach the quality of colour histological atlases (e.g. Orihel and Ash, 1995: Parasites in human tissues). The chapter "Medically important arthropods" is extensive, involving not only ectoparasites, but as well mechanical disseminators of pathogens (e.g. cockroaches), intermediate hosts of some parasites (e.g. copepods) and stinging and biting arthropods. On the other hand, the true ectoparasites and vectors of vector-borne infections are discussed very shortly. The main part of the chapter "Treatment of parasitic infections" is a very concise table containing drugs and dosages for treating parasitic infections.

The second part "Diagnostic procedures" consists of three coprological chapters: "Collection, preservation, and shipment of fecal specimens", "Macroscopic and microscopic examination of fecal specimens" and "Additional techniques for stool examination", and of chapters dealing with diagnostics of parasites from other materials: "Examination of other specimens from the intestinal tract and the urogenital system", "Sputum, aspirates, and biopsy material" and "Procedures for detecting blood parasites". These chapters are provided with very instructive figures and protocols. In the next chapter, "Parasite recovery: culture methods, animal inoculation, and xenodiagnosis", the most common and wide-spread cultivation techniques used in parasitological laboratories are selected. The chapter Fixation and special preparation of fecal parasite specimens and arthropods presents the most common techniques used for the fixation of material for classical stainings. The chapter "Artifacts that can be confused with parasitic organisms" can help to avoid some misdiagnoses and faults. Practical advice can be found in the last chapter "Equipment, supplies, safety, and quality assurance recommendation for a diagnostic parasitology laboratory". Out of 7 appendices, I have found appendix 3 – "Common problems in parasite identification" as the most useful.

This book can be recommended as a text-book for the students of faculties of science or medicine and as handy assistant of workers in parasitological laboratories.

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