Protozoan Infections of Man

Other Infections

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1. INTRODUCTION

The choice of the optimal chemotherapy for the protozoan infections covered in this chapter deserves particular attention by physicians because of the potentially life-threatening nature of some of these diseases such as pneumocystosis, toxoplasmosis, and amebiasis, and because of the large numbers of individuals with clinical diseases caused by pathogens such as *Giardia lamblia, Entamoeba histolytica,* and *Trichomonas vaginalis.* The initial therapeutic decision that must be made is whether treatment needs to be instituted. Some of the manifestations of certain protozoan disease are almost always mild and self-limiting, such as cryptosporidiosis or lymphadenopathic toxoplasmosis in the immunocompetent host. In other situations, therapy is probably not warranted because the protozoan infection is producing no clinical illness and the likelihood of immediate reinfection is high, e.g., asymptomatic *Entamoeba histolytica* cyst passers in a high-risk endemic population.

If therapy is warranted in a particular clinical and epidemiological setting, the choice of agents must be made on the basis of documented experiences that are not always easy to compare. The definition of the clinical entity being treated is often imprecise, making it difficult to know with certainty whether the diarrheal syndrome was true dysentery as opposed to a more modest diarrheal illness. Parameters of response are often measured on the basis of subjective evaluation rather than by objective criteria. The duration and thoroughness of follow-up management is also variable, leading to uncertainty as to whether therapy is actually effective in curing patients or is merely suppressing disease. True cures of these protozoal diseases are ideally determined by...
scrupulous parasitological follow-up as well as clinical assessments. Many studies do not specify the number of follow-up examinations and use techniques involving less than optimal sensitivity. For instance, culture of *Trichomonas vaginalis* is much more sensitive than wet mounts (Hager et al., 1980). Thus, it can be somewhat misleading to compare trials when the clinical and parasitological assessments are not equivalent.

A chapter of this length cannot provide an exhaustive review of the literature. The studies cited are reasonable trials that support the approach to disease entities taken by these authors, as summarized in Table I. For certain diseases, particularly amebiasis, a variety of therapeutic regimens can be successfully used; however, each must be carefully chosen according to the extent and severity of the illness, as well as any special conditions that might affect patient management, such as age, immunological status, pregnancy, heart disease, eye disease, hepatic dysfunction, or renal insufficiency. Very few drugs effective against protozoal diseases are known to be safe in pregnancy. For patients who fail the initial regimen (as opposed to those who are reinfected), there are rarely guidelines for how to proceed: in some cases a second, identical course is given; in other cases, an alternative regimen is administered or several effective drugs are given concurrently.

2. ENTAMOEBA HISTOLYTICA

2.1. Clinical Considerations

Amebiasis consists of a spectrum of clinical processes that include asymptomatic carriers, mild bowel disease, dysentery, and extraintestinal disease, particularly liver abscesses. The therapy of amebiasis has been greatly simplified by the development of both oral and parenteral forms of metronidazole, a safe and effective drug that is active against all forms of *E. histolytica*. Metronidazole can have an important role in the treatment of any form of amebiasis, yet there remain a number of important roles for other drugs as part of initial therapeutic regimens and as alternatives for patients who fail metronidazole-containing treatment protocols or who cannot tolerate metronidazole. For example, emetine and dehydroemetine are still highly useful drugs for initial therapy of patients with life-threatening bowel or liver disease. Diloxanide furate is preferred by many authorities for the treatment of patients with mild or asymptomatic bowel disease, because of the low incidence of significant adverse reactions (Wolfe, 1973).

The precise regimen that is best for the treatment of a specific syndrome depends on clinical considerations. Because several useful drugs are available, authorities recommend a number of different regimens: one approach to the therapy of specific syndromes is offered in Table I. In assessing the drugs discussed below, it is important to be reminded that a true cure of intestinal amebiasis must be documented by repeated stool examinations for several months—a criterion that is not always used in studies and that is difficult to demand in endemic areas in which reinfection is common.