

INTRODUCTION

The physician can no longer limit his medical knowledge to diseases inherent in his area of practice but must be knowledgeable in the world health problems, especially parasitic infestations which are endemic mostly in tropical, subtropical, and under developed countries, where poverty, lack of hygiene, and inadequate sanitary facilities create a favorable soil for infestation (Faust and Russell, 1964).

The parasitic diseases are certainly a major cause of morbidity and mortality in these areas : malaria, schistosomiasis, trypanosomiasis, filarial worm infections, and leishmaniasis affect several hundred million people across the globe. Infections are not found exclusively in these areas, but also some diseases are common in economically advanced societies, such as toxoplasmosis, trichinosis, trichomoniasis, and various intestinal worms. Also other nonendemic infections may be imported as a result of travel and immigration from endemic areas , since early recognition is important to the individual and the community around him (McKoy and Moschella, 1985).

A parasite is conveniently defined as an organism

which depends upon a living host for one or more of its essential metabolic requirements (Ebiling, 1979), the hosts for these parasites may be plants, invertebrate animals, and man (Moschella, 1975).

Many terms have been used to describe the relationships between parasites and their hosts, the definitive or final host is the one in which the parasite becomes sexually mature, and the intermediate host is one in which larval development or a sexual phase of the parasite occurs (Harman, 1979), obligate parasites can not exist without a host; facultative parasites can have either a parasitic or a free-living existence (Moschella, 1975), endoparasites live within the body of the host, and ectoparasites live on the outside of the body surface (Ebiling, 1979).

Parasites have developed a variety of life cycles through adaptation to their environment and host, knowledge of the life cycle is important to physicians, enabling them to predict routes of infection and method of disease prevention. Some

parasites may spend their entire lives with one host, whereas others may require only brief contact. Parasites may exist for periods outside the host in the form of cysts, eggs, or larvae. The larvae may pass through developmental stages in one or more intermediate hosts (Mckoy and Moschella, 1985).

The sources of exposure which may result in the parasitic disease are contaminated soil, water, or food containing the infective stage of the parasite, a blood- sucking insect, a wild or domestic animal harboring the parasite, and an infected person or his contaminating clothing (Moschella, 1975).

The clinical manifestations of the parasitic infections are frequently equal to the degree of pathologic changes, which result from local or systemic intoxication, sensitization, or mechanical obstruction effects of the parasite and depend on the number and species of parasite, the condition of the host, and the organs affected (Mckoy and Moschella, 1985).

The cutaneous lesions may result from direct damage by or presence of the parasite, or occur in sites which are not themselves infected and the resultant lesion may be localized or may be only one manifestation of wider systemic infection (Ebiling , 1979).

Control the parasitic diseases requires the diagnosis and treatment of diseased patients, examination and treatment of other members of the family, determination of the source of infection, instruction of the patient and community in preventive measures, and improvements in local health departments and agencies (Moschella, 1975).

The principal groups of parasitic organisms which are responsible for human skin diseases are divided into three major groups : protozoa, helminthes and arthropods (Ebiling , 1979), but the internal parasites which cause diseases with cutaneous manifestations belong for the most part protozoa and helminthes (Farah , 1979).

Moschella, (1975) classified protozoa of dermatologic

significance into the following :

I- Sarcodina (move by pseudopods):

Entamoeba histolytica ----- Amoebiasis

II- Mastigophora (move by flagella):

Trichomonas vaginalis ----- trichomoniasis

Trypanosoma gambiense ----- African trypanosomiasis

Trypanosoma rhodesiense

Trypanosoma cruzi ----- American trypanosomiasis

Leishmania tropica ----- Cutaneous leishmaniasis

Leishmania braziliensis ----- Mucocutaneous leishmaniasis

Leishmania donovani ----- Visceral leishmaniasis.

Toxoplasma gondii ----- Toxoplasmosis.

III- Sporozoa (No locomotor organs):

Plasmodium species ----- Malaria

Mckoy and Moschella (1985) classified the parasitic worms (helminthes) of dermatologic significance as follows:

I- Nemathelminthes (Roundworms):

Nematoda:

A) Intestinal roundworms :

Enterobius vermicularis ----- Oxyuriasis

Strongyloides stercoralis ----- Strongyloidiasis
(larva currens).

Necator americanus ----- Ancylostomiasis

Ancylostoma duodenal (hookworm disease)

Toxocara canis ---- toxocariasis (visceral larva migrans)

Gnathostoma spinigerum --- gnathostomiasis.

B) Tissue roundworms:

Wuchereria bancrofti ----- filariasis

Brugi malayi

Loa loa ----- loiasis

Dipetalonema perstans ----- acanthocheilonemiasis

Dracunculus medinesis ----- dracunculosis

Trichinella spiralis ----- trichinosis

II- Platyhelminthes (Flatworms):

A- Trematoda:

Schistosoma haematobium ----- schistosomiasis

Schistosoma mansoni (Bilharziasis)

Schistosoma japonicum

B- Cestoda:

- Taenia solium -- cysticercosis, pork tapeworm infection
- Echinococcus granulosus -- echinoccosis, hydatid disease
- Spirometra mansonioides -- sparganosis
- Spirometra mansoni
- Multiceps species ----- coenurosis