

Faculty of Medicine

Department XIII: Infectious diseases

University Department Sub-Structure of Parazitology

University Professor, Position 22

Topics

1. Parasitology objectives. History. Notion of parasite and host. Relationship host parasite – environment. Ways used by parasites for penetrating the host. Ways used by the host for parasites elimination. Ecologic parasitology. Parasitic specificity. Eradication of parasitic diseases. Immunity in parasitic diseases: humoral and cellular immunity mechanisms in parasitic diseases. Parasitic antigens. Hypereosinophilia in parasitic diseases. Immunological reactions used for the laboratory diagnosis of parasitic diseases. The parasites in immunocompromised hosts.
2. Parasitic protozoans: General features, taxonomy, morphology, life cycle, simptomatology, diagnosis, treatment, epidemiology, prophylaxy
 - Cl. Sarcodina : *Entamoeba histolytica*, *Entamoeba coli*, *Entamoeba gingivalis* . Free Rhysopods with pathological role on human host (*Acanthamoeba* spp., *Naegleria fowleri*)
 - Cl. Mastigophora: *Trichomonas vaginalis*, *Trichomonas intestinalis*, *Trichomonas tenax*, *Giardia lamblia*.
 - Cl. Ciliophora: *Balantidium coli*
3. Parasitic protozoans: General features, taxonomy, morphology, life cycle, simptomatology, diagnosis, treatment, epidemiology, prophylaxy.
 - Cl. Sporozoa: *Plasmodium vivax*, *P. malariae*, *P. falciparum*, *P. ovale*, *P. knowlesi* – etiological agents of malaria.
 - Cl. Sporozoa: *Babesia* spp
4. Parasitic protozoans: General features, taxonomy, morphology, life cycle, simptomatology, diagnosis, treatment, epidemiology, prophylaxy.
 - Cl. Sporozoa: *Toxoplasma gondii*, *Cryptosporidium parvum*.
 - Trematodes: General features, taxonomy, morphology, life cycle, simptomatology, diagnosis, treatment, epidemiology, prophylaxy. *Fasciola hepatica*, *Dicrocoelium dendriticum*, *Opisthorchis felinus*.
5. Cestodes: General features, taxonomy, morphology, life cycle, simptomatology, diagnosis, treatment, epidemiology, prophylaxy. *Diphyllobothrium latum*, *Tenia solium*, *Tenia saginata*, *Echinococcus granulosus*, *E. multilocularis*, *Hymenolepis nana*, *Hymenolepis diminuta*, *Dipylidium caninum*.
6. Nematodes: General features, taxonomy, morphology, life cycle, simptomatology, diagnosis, treatment, epidemiology, prophylaxy. *Enterobius vermicularis*, *Trichuris trichiura*, *Ascaris lumbricoides*, *Strongyloides stercoralis*, (Larva migrans cutanata) *Trichinella spiralis*.
7. Arthropods of medical interest: General features, taxonomy, morphology, life cycle, simptomatology, diagnosis, treatment, epidemiology, prophylaxy.
 - Cl. Arachnida: Fam. Demodecidae: *Demodex folliculorum*, Fam. Sarcoptidae: *Sarcoptes scabiei*. Fam. Ixodidae: Genus *Argas* - *Argas persicus* si *Ornithodoros moubata*, Genus *Ixodes* - *Ixodes ricinus*, Genus *Rhipicephalus* - *Rhipicephalus sanguineus*, Genus *Dermacentor*- *Dermacentor andersoni*.
 - Cl. Insecta: Ord. Anoplura: *Pediculus corporis*, *Pediculus capitis*, *Phthirus pubis*
8. Arthropods of medical interest: General features, taxonomy, morphology, life cycle, simptomatology, diagnosis, treatment, epidemiology, prophylaxy.
 - Cl. Insecta: Ord. Aphaniptera: *Pulex irritans*, *Ctenocephalus canis*,
 - Cl. Insecta: Ord. Hemiptera: *Cimex lectularius*
 - Ord Diptera: Fam. Culicidae, Fam. Psychodidae, Fam. Simuliidae. Fam. Muscidae. Miasis. Arthropodes control measures (fisical, chemical, biological, ecological, genetical)..
9. Notions of tropical parasitology. Introduction. Definition and special features of tropical

- medicine. Object of tropical medicine. Tropical protozoans: General features, taxonomy, morphology, life cycle, symptomatology, diagnosis, treatment, epidemiology, prophylaxy. - Cl. Mastigophora: *Leishmania donovani* (visceral leishmaniosis), *Leishmania tropica* (cutaneous leishmaniosis), *Leishmania brasiliensis* (south-american leishmaniosis), *Trypanosoma brucei gambiense*, *Trypanosoma brucei rhodesiense* (african tripanosomiosis) și *Trypanosoma cruzi* (south-american tripanosomiosis)
10. Tropical trematodes. General features, taxonomy, morphology, life cycle, symptomatology, diagnosis, treatment, epidemiology, prophylaxy. *Clonorchis sinensis*, *Paragonimus westermani*, *Fasciolopsis buski*.
 11. Tropical trematodes. General features, taxonomy, morphology, life cycle, symptomatology, diagnosis, treatment, epidemiology, prophylaxy. *Schistosoma mansoni*, *Schistosoma japonicum*, *Schistosoma mekongi*, *Schistosoma intercalatum* și *Schistosoma haematobium*
 12. Tropical nematodes. General features, taxonomy, morphology, life cycle, symptomatology, diagnosis, treatment, epidemiology, prophylaxy. *Ancylostoma duodenale*, *Necator americanus* (necatorosis), *Wuchereria bancrofti*, *Brugia malayi* (etiologic agents of limfatic filariosis).
 13. Tropical nematodes. General features, taxonomy, morphology, life cycle, symptomatology, diagnosis, treatment, epidemiology, prophylaxy. *Loa-loa* (etiologic agent of cutaneous filariosis), *Onchocerca volvulus*, *Dracunculus medinensis*.
 14. Tropical hygiene. Concept of tropical hygiene. Climatic factors and health condition of human colectivities. Nourishment hygiene in tropical regions. Tropical diseases transmitted by food. Drinking water supply in human settlements. Waterborne tropical diseases.

Bibliography

1. Ash LR, Orihel TC, Atlas of Human Parasitology, 4th ed., American Society of Clinical Pathologists, Chicago (IL), 2007
2. BENNETT JE, DOLIN R, BLASER MJ. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 8th Edition, 2015
3. COOK G.C.: „Manson's Tropical Diseases” 23rd Edition, Elsevier, 2014
4. GARCIA LYNNE, Diagnostic Medical Parasitology, ASM Press, 2016
5. SANDRINE HOUZÉ, FRANÇOISE BOTTEREL-CHARTIER, de ANOFEL “Parasitologie Et Mycologie Médicales - Guide Des Analyses et des Pratiques Diagnostiques”. Elsevier Masson, 2018
6. Parasitoses et mycoses: des régions tempérées et tropicales; de ANOFEL. Réussir les ECNi Broché – 2016.