أسئلة وأجوبة المناعة إمتحان مادة مناعة وطفيليات ٤١٤ح

(نصف ورقة إمتحانية)

كلية: العلوم
قسم: علم الحيوان
المستوى: الرابع
الشعبة: حيوان وكيمياء
تاريخ الإمتحان: ٢٠١٧/ ١/ ٢٦
استاذ المادة: د/ جيهان حسين لاشين أ.د/ جزاء حسن مرسى

PARASITOLOGY

1- *Choose*: (6 degrees)

1. The diagnostic stage of *Loa loa* is …….

a) L1 b) Microfiaria in blood.

c) Filariform d) a & b

2. The following are intestinal Nematodes except *:*

a) *Enterobius vermecularis* b) *Ascaris*

c) *Wucheraria bancrofti* d) *Ancylostoma*

3. The following parasites lay eggs in the intestine except:

a)*Ascaris lumbricoides* b)*Enterobius vermicularis*

c)*Trichuristrichiura* d)*Ancylostoma duoednal*

4. Which parasite is related to Calabar swelling ?

a) *Trichinella spiralis* b) *Loa loa*

c)*Ascaris* d) *Ancylostoma*

5. Autoinfection is shown by ……

a) *Dracunculus medinensis* b) Pin worm

c) *Loa loa* d) *Ascaris*

6. *Cyclops* may be involved in the transmission of :

a) *Trichuris trichiura* *b) Ascaris*

c*) Dracunculus medinensis* d) *Loa loa*

7- Egg contains 2nd stage rhabditoied larva is the infective stage of ……

a) *Trichinella spirlais* b*) Loa loa*

c) *Ancylostoma* d) *Ascaris*

8-The followings parasites are viviparous , except:

a) *Trichinella spirlais* b) *Dracunculus medinensis*

c) *Enterobius vermecularis* d) *Loa loa*

9- The rhabditiform larva of *Strongyloides stercoralis* can detected in:

a) stool b) sputum

c) urine d) a&b

10- …… is \are helminthes has \have migratory cycle in the lung:

a)*Ascaris* b)*Ancylostoma*

c) *Strongyloides stercorlais* d)All of the above are correct

11- Infection with *Ancylostoma duodenale* is through :

a) Egg ingestion . b)Penetration by filariform larva.

c) Penetration by rhabditiform larva. d) Ingestion of *Cyclops*.

12- Euryxenous parasite infects……

a)Many unrelated host species b) one host
c) Many related host species d) Non of these.

2- Compare between the life cycles of *Toxoplasma gondii* & *Eimeria sp.* (6 degrees)

3-Write on: (9 degrees)

a-Different kinds of *Trichomonas*.
b- Pathogenesis of *Entamoeba histolytica* .
c- The life cycle of *Wucheraria bancrofti* .

4- Mention the mode of infection & the infective stage of *Trichinella spiralis* & *Loa loa* . (3 degrees)

PARASITOLOGY

Answer

***1-Choose*:** **(6 degrees)**

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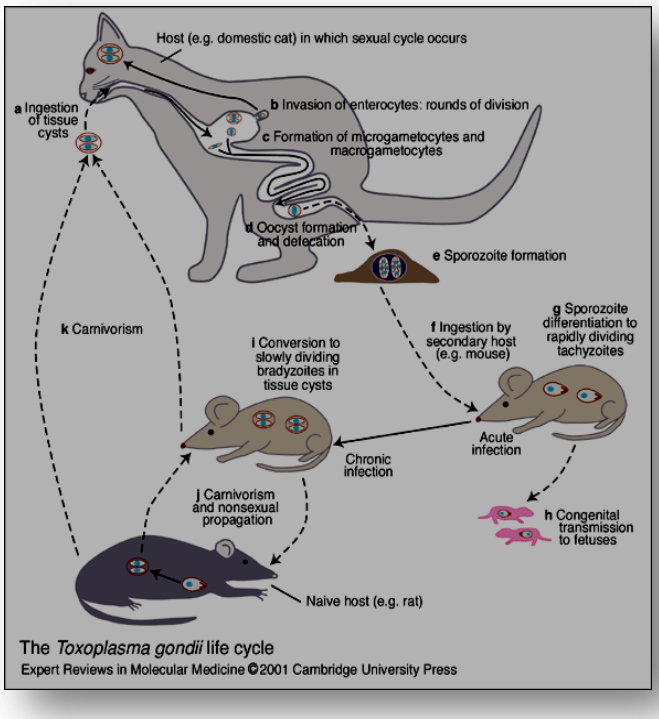
2- Compare between the life cycles of *Toxoplasma gondii* & *Eimeria sp.* **(6 degrees)**

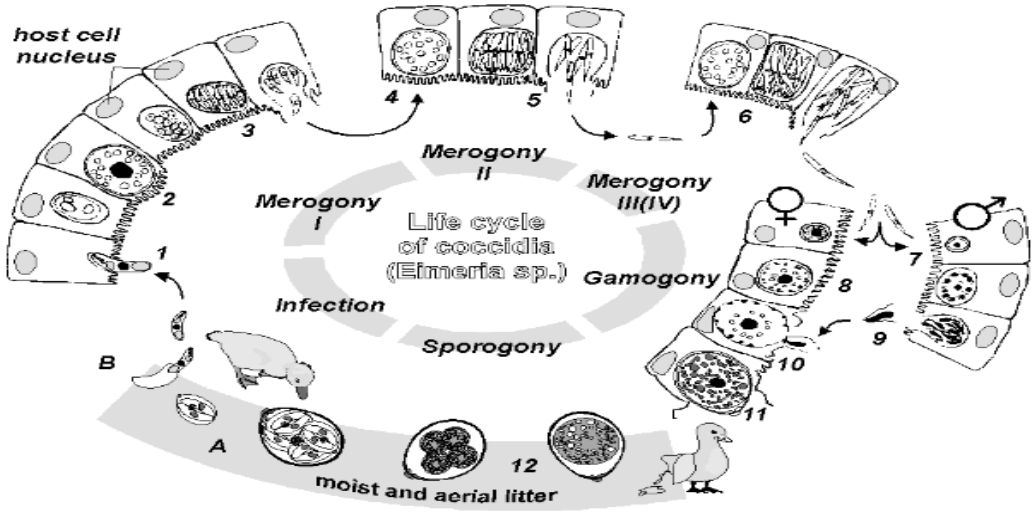
Toxoplasma gondii : in the natural cycle, mice and rats containing infective cysts are eaten by the cat, which serves as the definitive host for the sexual stage of the parasite. The cyst wall is digested, releasing organisms that penetrate epithelial cells of the small intestine of the cat. Several generations of interacellular multiplication occur, finally, the parasite develops micro and macrogametes, then fertilization occurs, and oocysts are developed and discharged into the intestinal lumen. Oocysts require 1-5 days to sporulate. Tachyzoite is an actively multiplying asexual form (intracellular) . it is pyriform in shape about 3 by 6 micron



Tachyzoites multiply within host cells by endodyogeny (two daughter cells are formed within another cell) . there is an indefinite number of tachyzoite generations. Eventually, they enter other cells and form the structure generally called a cyst within it a large number of **bradyzoites** (slowly developing zoites). Any nucleated cell may be parasitized by tachyzoites, but those of the central nervous system and nuscles are prferred for the formation of bradyzoites in tissue cysts.

Human or animal infections can result from 1. Ingestion of material contaminated with infected cat feces 2. Eating raw or partially cooked meat and drinking unboiled milk.

Eimeria is characterized by the presence of four sporocysts in each oocyst and two sporozoites in each spore . they occur primarily in the intestinal cells of vertebrates , but may also be found in epthelial cells of the liver & bile duct **.**Transmission takes place by ingesting mature oocysts with contaminated food or drink . The infection may cause acute enterocolitis with diarrhoea , but it is short and self – limiting , needing no special treatment . Many species infect cattle , horses , camels ,sheep and goats . *Eimeria zurnii* is the most pthogenic in cattle and may kill young calves .



3-Write on: . (9 degrees)

a-Different kinds of *Trichomonas*.

***Trichomonas vaginalis* :** This species lives in the female vagina or the male urethra or prostate. In females it is common (up to 40%) and may cause trichomonas vaginitis, with inflammation and discharge. In males, mild inflammation of the urethra may occasionally result.

Tritrichomonas foetus A parasite of cattle and in pregnant cows it may lead to obortion. Probably all parasites are expelled with the aborted foetus and placenta, but males should be slaughtered because treatment is expensive.

Trichomonas gallinae **:**A parasite of mouth , pharynx, oesophagus and crop of birds. In young pigeons the parasite produces avian trichomoniasis, which is severe and may be fatal. The young birds get the infection from their parents during feeding

b- Pathogenesis of *Entamoeba histolytica* .

Pathogenicity is associated with tissue invasion and change in feeding

habits of the amoebae. The reasons are still unkonwn. The parasites penetrate the mucosa and the muscularias mucosae and invade the sub-mucosa , where they spread laterally , below the mucosa, forming a characteristic flask-shaped ulcer. Many blood – vessels are broken and the typical bloody dysentery results.

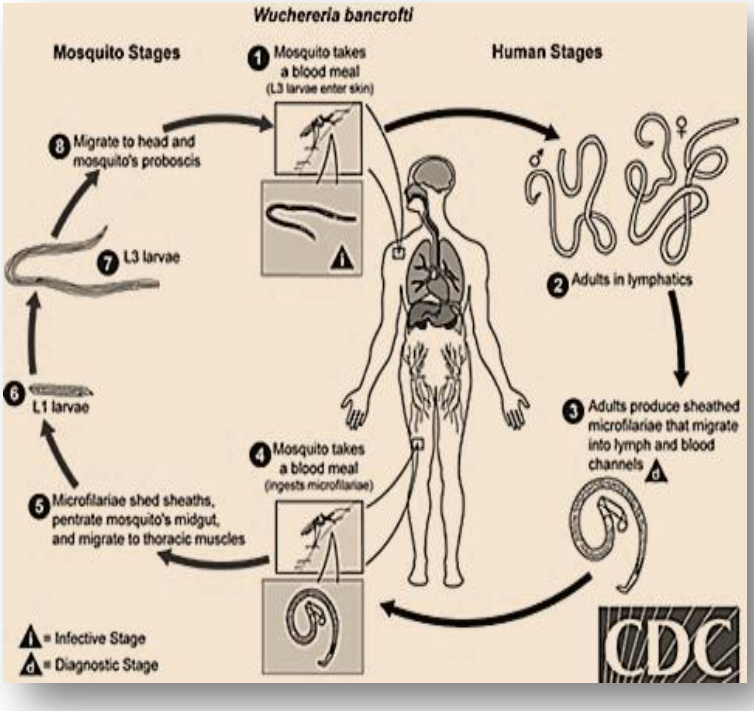
The parasites may spread, by way of the blood and lymph vessels, to other places causing various forms of (metastatic) lesions. Metastatic types are serious complications of intestinal amoebiasis. The spreading amoeba invade and destroy tissues in various organs, forming amoebic abscesses, which may become very large. The commonest site is the liver (hepatic amoebiasis) to which the parasites are carried by the protal circulation, but they may found in almost any organ , including lung and even brain.

Symptoms vary from minor intestinal disturbances, like mild constipation or diarrhoea with mucus but no blood, the typical "dysentery" with severe diarrhoea with mucus and blood

c)Life cycle of *Wuchereriabancrofti.* (3 degrees)

Wuchereriabancrofti lives in the lymphatic vessels & glands of man .

Females produce sheathed microfilariae , which are nocturnal appearing in peripheral blood between 10 p.m& 4 a.m . This coincides nicely with the activities of their night – biting mosquito –vectors , *Anopheles*. The larvae develop and moult twice in the thoracic muscles of the mosquitoes becoming filariform infective larvae and migrate to the mouth parts . During the mosquito bite the larvae are liberated and pentrate the wound or skin if the weather is worm and moist .



Microfilariae produce no symptoms, but adults produce Filariasis due to inflammatory and allergic reactions as well as lymphatic obstruction . In older infections ,these obstructions may lead to gradual

and slow swelling ,fibrosis & great enlargment of extremities especially in legs (elephantiasis)

4- Mention <u>the infective stage</u> & <u>diagnostic stage</u> of *Strongyloidessterocorals , Trichinella spiralis & Ancylostoma* .

(3 degrees)

-<u>Strongyloidessterocorals</u> :Filariform larvae is the infective stage while diagnostic stage is the rahabditiform larvae

-Trichinella spiralis **:**Larvae encyst in muscles of pork are the infective & diagnostic stage.

***-<u>Ancylostoma</u>*:** Filariform larvae is the infective stage while diagnostic stage is the egg with four blastomeres in stoole.