**Final term: Assignment (spring 2020) BS MLT 4th**

**Course title: Clinical Mycology and parasitology: instructor: Mam : Huma Imitiaz from Masood Jan I’d 14922**

**Date 25 / 6/2020:**

**Q1 :**

**Ans: Enterobius:**

* Which they affected the intestine.

**Disease :** Enterobius vermicularis which cause pain worm infections of human beings enterobiasis .

* **Life cycle:**
* The life cycle is confinedly to humans
* The infection gotten through environmental force by ingesting the worm eggs.
* The eggs in the small intestine hatch, which larvae difference into migrate to adults into the colon.
* The adult of Male and female worms which live in colon which occur mating.
* The female migrates from the ones and release thousand of egg fertilized on the skin and to environment at the night time.
* The eggs are make into embronated eggs which comes infection with in 6 hours.
* If they are carried to the mouth the reinfection can occur by finger after scratching the itching skin.

**Q2:**

**Ans: Ascaris :**

**Disease:**  the sacaris lumbricoides cause ascariasis .

**Pathogenesis:**

* The during larval migration the major damage occurs rather that from the present of adult worm in the intestine.
* Where deepening within eosinophilic exudate occurs in response to larval antigens. Which the chief sites of tissue reaction are the lungs.
* A heavy worm burden may contribute to poor nutrition especially in children in growing or developing countries, because the adult derive their nourishment from ingested food.
* Are asymptomatic the most infection.
* Ascaris pneumonia. Can occur with a heavy larval burden with ,cough, fever, and eosinophilic.
* The present of adult worms in the intestine which abdominal pain and even obstruction can on the results form.

**Q3::**

**Ans:: Entamamoeba Histolytic::**

**General properties::**

* They are world wide distribution.
* They are protozoan to Rhizoped.
* Host of that human beings.

**Transmission::**

* Through the fecal oral route contaminated food and water and with ineffective stage is mature cyst which localization with large intestine.

**Infection,**  two types.

* Intestinal amobiasis.
* Extra intestinal amobiasis.
* Inflammation of gut.
* Painful diarrhea containing .
* Large intestine.

**There are two main form .**

1. **Cyst form. They are spherical in shape .**
2. **Trophozoite. 15 to 30 um diameter.**

**Life cycle.:**

* + **Cysts:** the cysts comes to the stomach.
  + The cysts to the stomach in the resistance environments and pass to the small intestine.

2. **Small intestine:**

* + That each cyst divide to make 8 trophozoites in the small intestine.

**3. Trophozoites::**

* + They are move to the colon of large intestine.
  + Will these trophozoites start colonization of large intestine.
  + They cause of two types of infections

**4. In case of non invasive infection:**

**Histolytic trophozoites:**

* The just go to the surface of mucos layer and multiply to binary fusion. Which coloized at the surface of mucos membrane and will make new cyst.
* Which cyst can infect the new human by contamination of drinking water unhygienic food.
* They invasive infection with will live in human body aryneptoniatically or cause mild.

**5. Invasive infection:**

* Which cause the epithelial cell to die will create ulcers to the large intestine.
* The trophozoites involve and colonize the colonic epithelial cell.
* Neutrophils response to invasive will cause farther damage.
* Creating ulease the large intestine which damage colon cells and mucosa membrane.
* Trophozoites move toward blood stream.
* Which enter the blood that target other organ.
* That other sites infect such as liver , lungs.

**Q4:**

**Ans:: Diagnose trypanosoma Cruzi inside laboratory:**

* **Acute** disease is diagnosed by confirmation the present of trypomastigotes in thin or thick films of patients blood.
* **Both** especially of reputation aqueous arrangement should be examined the closing for motile organisms.
* **Because** the trypomastigotes are not numerous in the blood other diagnostic methods may be necessary namely.
* As stained arrangements of a bone marrow aspiration or muscle biopsy specimen which may reveal amastigotes.
* Ability of the organism on appropriate medium.

**Q5:**

**Ans::**

**Leishmania species::**

**There are four species**

1. **Leishmania donovani.**
2. **Leishmania tropical.**
3. **Leishmania Mexican.**
4. **Leishmania braziliensis.**
5. **Leishmania donovani.**

**Clinical finding:**

* Symptoms begin fever, weight loss and weakness.
* Bran door enlargements of the spleens characteristic.
* Hyperpigmentation of skin seen light skinned patients.
* The disease duration runs for months to years.
* Initially patients fell reasonably well admitting persistent fever.
* As leukopenia, anemia, and thrombocytopenia become more preformed, weakness, gastrointestinal bleeding and infection occur.

**Clinical findings:**

**Leishmania tropica ,leishmania mexicana, and leishmania braziliensis.**

* They basic lesion of cutaneous leishmaniasis is a red purple at the bite site, commonly on an exposed extremity.
* This enlarges boring to form collective satellite modules. That coalesce and celebrate.
* There is commonly a single lesion that heals spontaneously in patients with a competent immune system.
* However in believing individuals, if cell mediated immunity doesnot advance the lessons can spread to involve large areas of skin and cantinas enormous numbers of organism.
* Mucocutaneous leishmaniasis begins with a pupale at the chomp site, but than metastatic mucocutaneous junction of the nose and mouth.
* Ulcerating lessons destroy nasal cartilage but not adjacent bone.
* There lessons heal slowly.