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Assignment = mycology and parasitology

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Q1: A 45 years old man, Sikandar is presented to the local hospital having an allergic attack just like asthma.Upon investigations of chest X ray fungus balls were seen that change its position when the patient is moved from an erect to supine position. What according to you is the possible diagnosis for this condition? What is the causative agent which causes the condition?

Ans: possible diagnosis for this condition will be x-rat, CT scan and the Aspergillus precipitin test look for IgM igG and igE antibodies in the blood.

The condition will be Aspergillosis and causative agent is aspergillus.

Q2 : (a). Definitive host:

The organisms in which the adult or sexually maturation stages of the parasite lives.

E.g human is the definitive host for tapeworm

(B) Intermediate Host: The organism in which the parasite lives during a period of its development only.

E.g some tapeworms lives in fish , pigs and cows , so they are intermediate host for that.

(C) vector . A living carrier that transport a pathogenic organism from an infected to a non infected host.

E.g female anopheles mosquito that transmit malaria are vector.

Q3: Explain the transmission and life cycle of plasmodium in your own words.

Ans:

Transmission: It is transmitted through mosquito bites ( female anopheles) .

* Also transmitted through placenta (if mother was infected)
* Through blood transfusions
* Intravenous drugs ( syringes)

Life cycle of plasmodium:

Life cycle of plasmodium are of two types

1. Asexual cycle
2. Sexual cycle
3. Asexual cycle : Asexual cycle occurs in human

* Called schizogony because schizonts formation occurs
* In human parasite resides inside the liver cells and red blood corpuscles
* Infectious sporozoites occur in liver through blood
* The parasite reproduce asexually in liver
* The sporozoites burst the cell and release to blood
* Reproduce asexually in RBCs
* And burst the RBCs
* And infect new RBCs

Asexual cycle complete in 4 stages

1. Pre-Erythrocytic schizogony
2. Erythrocytic schizogony
3. Gametogeny
4. Exo-Erythrocytic schizogony
5. Sexual cycle:

* Sexual cycle occurs in mosquitoes
* Sexual cycle are known as sporogony because production of sporozoites occurs
* The life cycle of plasmodium first start in the human host by the formation of gametocytes
* The gametocytes present in the RBCs
* Mosquito take up the gametocytes with blood
* Fertilisation and development takes place in mosquito stomach
* Sporozoites become mature
* And then migrate from stomach to salivary gland
* Which transfer to other humans with biting