 MekanisaDebre Genet St, Michael cathedral secondary School

2012 E.C 2nd semester Biology

short not grade 9th

Using medicines correctly

Medicines must be used properly if they are to cure because medicines are powerful substances if they are misused they can cause harm. Make sure your finish taking all the medicine if you don't follow the instructions when you are given antibiotics antibiotic resistant bacteria may evolve which can be very serious indeed.

Proper use and handing of medicines

- Making sure we store medicines at the right temperature
- Keep away from reach of young children
- Drugs should be prescribed by doctors
- Read the instructions that come on t he packet with your medicine
- Take the proper dose

Many of the medicines we use in Ethiopia are traditional medicines that we get from our healers. Medicines such as dingetegna and Koso can be very powerful. However they can also interact with other modern drugs. These interaction can cause big problems there is a lot of work going on in Ethiopia at the moment for example at the.

Ethiopian health and nutritional research institute (EANRT) and Biform project in Addis Ababa looking at how traditional medicines work and how effective they are

Advantages of traditional medicines:- found easily made from herbs and spices and effective on pathogens.

Disadvantages of traditional medicines:- not reliable and unknown dose

Review question page 156 – 157

4.3 HIV and AIDS

HIV is the virus that causes AIDS. The human immune deficiency virus (HIV) infection causes a gradual depletion and weakening of the immune system. Acquired immune deficiency syndrome (AIDS) is the medical term for a combination of illnesses that
Results when the immune system is weakened or destroyed. The majority of people infected with HIV if not treated develop signs of AIDS wit in 10 – 15 years

- Globally the people most vulnerable to HIV/AIDS include:-

* People with multiple sex partners
* injecting drug users
* Children of infected mothers
* the poor women & girls

HIV/AIDS Transmission

HIV is transmitted when the virus enters the body usually by injecting infected cells or semen.

- There are several possible ways in which the virus can enter

* Through sexual contact including oral vaginal and anal sex
* Women can transmit HIV to their babies during pregnancy child birth and breast feeding
* Through infected blood on needles used injecting illegal drugs or knives used to carry out FGM.

HIV and Immune system

Your immune system is based in your lymph system which spread all through your body.

- The lymphatic system has two very different functions

* It returns tissue fluid to the blood to maintain normal blood volume & it protects the body from pathogens it also absorbs fat. Lymph and lymph vessels lymph nodes spleen are major components of lymphatic system. Therefore the lymphatic system is considered part of the circulatory & immune systems.

Lymph:- fluid containing write blood cells which flows through the lymphatic system. But it does not containing RBCS and blood protein. This fluid circulates among the tissue cells is collected by lymphatic vessels and is returned to the veins near the heart. The lymph is moved by the squeezing effect of muscle movements and the system has a series of values like those found in veins to prevent backflow of liquid. Along your lymph vessels you will find your lymph glands this white blood cells known as lymphocytes gather in these glands and produce antibodies against invading pathogens. These antibodies are carried in the lymph to the blood. They lymph glands also filter out bacteria and other microbes from the lymph to be ingested by the phagocytes. Enlarged lymph glands are assign that the body is fighting off an invading pathogen and suggest that you have an infection. The main sites of the lymph glands are the neck, armpit, stomach and groin. Draw

figure 4.33 page 161.

- How does HIV attack our immune system?

There are two main types of white blood cells in the immune system

i. Helper T cell :- this lymphocyte is called a ‘helper’ because it activates antibody secretion in B cells and another type of T cell

* Many T cells bind to the antigen and destroy it

* unfortunately T cell are the main target of HIV in the blood and they acts as the host that the virus needs in order to replicate

ii. B lymphocytes often called B cells:- they produce two types of cells that some are responsible to make antibodies which bind to the antigens and others become memory cells which remember how to make the right antibodies

- B cells can be thought of as antibody factories

Write blood ce

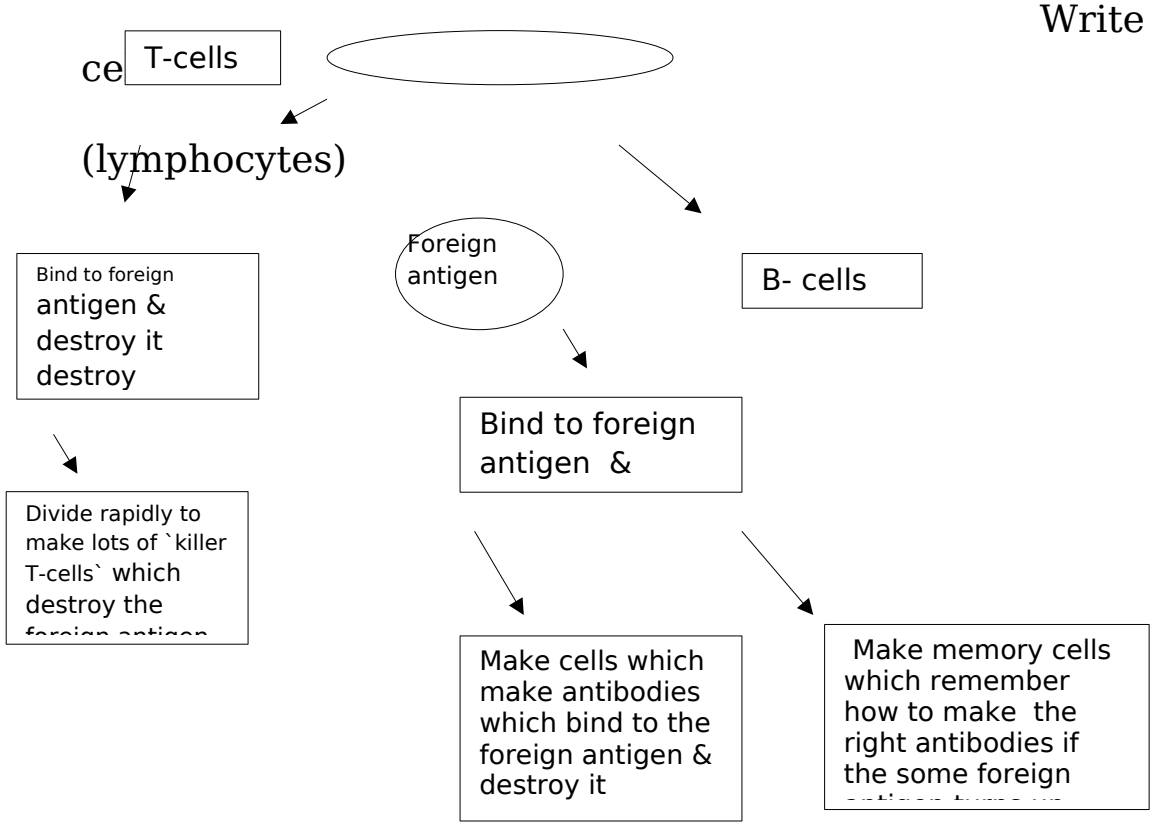


Figure 4.34 the T –and B cells of the immune system form a very good detence against most foreign antigens that get into the body