

**NAME:** ELAWEREMI .G. OYINTARELAYEFA

**MATRIC NUMBER:** 18/ MHS07/016

**COLLEGE:** MEDICINE AND HEALTH SCIENCES

**DEPARTMENT:** PHARMACOLOGY

**COURSE CODE:** ANA 202

**COURSE TITLE:** GROSS ANATOMY OF THE THORAX, ABDOMEN, PELVIC & PERINIUM

**DATE:** 18<sup>TH</sup> JUNE 2020 – 19<sup>TH</sup> JUNE 2020

**ASSIGNMENT:** 1. WHY DO WE HAVE THE PORTAL VEIN OR THE LIVER RECEIVING MORE BLOOD FROM THE VEIN THAN IT RECEIVES FROM THE ARTERY?

2. DISCUSS FIVE (5) DISEASE CONDITIONS OF THE LIVER

## WHY DO WE HAVE THE PORTAL VEIN ?

We have the portal vein or hepatic portal vein (HPV) because it is a blood vessel that carries blood from the gastrointestinal tract, gall bladder, pancreas and spleen to the liver. The blood been carried out by the portal vein contains nutrients and toxins extracted from digested contents.

## WHY DO WE HAVE THE LIVER RECEIVING MORE BLOOD FROM VEIN THAN FROM ARTERY?

The liver is connected to two large blood vessels, the hepatic artery and the portal vein. The hepatic artery carries blood from the aorta to the liver while the portal vein carries blood containing the digested nutrients from the entire gastrointestinal tract, spleen and pancreas to the liver. The hepatic portal vein supplies 75% of the blood to the liver while the hepatic arteries supply the remaining 25% of blood to the liver. The hepatic portal vein provides about two third of the blood to the liver, that's why the liver receives more blood from the vein than artery.

## DISCUSS FIVE DISEASE CONDITIONS OF THE LIVER

- **Hepatitis** : hepatitis is a viral infection of the liver. It causes inflammation and liver damage, making it difficult for the liver to function properly. There are five types of hepatitis

**Hepatitis A** : it is typically spread through contact with contaminated food or water. The symptoms may clear up without treatment but recovery can take a few weeks.

**Hepatitis B**: it can be acute or chronic, it's spread through bodily fluids such as blood and semen. There is no cure for it but early

treatment is the key to avoiding complication.

**Hepatitis C** : it can also be acute or chronic. Its often spread through contact with blood from with it. It doesn't often causes symptoms in it's early stages, it can lead to permanent liver damage in its later stages.

**Hepatitis D** : it is a serious form of hepatitis that only develops in people with hepatitis B. it can be contacted on its own, it can also be acute or chronic as well.

**Hepatitis E**: it is usually caused by drinking contaminated water. Generally it cleans up on its own within few weeks without any lasting complication.

- **Fatty liver disease** : when fat builds-up the liver it can lead to fatty liver disease. There are two types of fatty liver disease:

**Alcoholic fatty liver disease**: it is caused by heavy alcohol consumption.

**Non-alcoholic fatty liver disease**: it is caused by other factors except alcohol.

Both fatty liver disease can cause liver disease leading to cirrhosis and liver failure. Diet and other lifestyle changes can often improve symptoms and reduce the risk of complication.

- **Autoimmune conditions**: it involves the immune system mistakenly attacking healthy cells in the body. Several autoimmune conditions involve the Immune system attacking cells and liver including;

**Autoimmune hepatitis**: this conditions causes the immune system to

attack the liver resulting in inflammation, when left untreated, it can lead to cirrhosis and liver failure.

**Primary biliary cirrhosis (PBC):** this results from damage to the bile ducts in the liver, causing a build up of bile. PBC can lead to cirrhosis and liver failure.

**Primary sclerosing cholangitis:** this inflammatory condition causes gradual damage to the bile ducts. They eventually become blocked causing the bile to build up in the liver.

- **Genetic conditions:** several genetic conditions can affect the liver:

**Hemochromatosis:** causes the body to store more iron than it needs. This iron remains in the organs including the liver. This can lead to damage over a long period of time if not managed.

**Wilson's disease :** it causes the liver to absorb copper instead of releasing it into the bile ducts. Eventually, the liver may become too damaged to store more copper allowing it to travel through the bloodstream and damage other parts of the body including the brain.

**Alpha-1 antitrypsin (AT):** this deficiency occurs when the liver can't make enough alpha -1 antitrypsin, a protein that helps prevent enzyme breakdowns through the body. This condition can cause lung and liver disease. There is no cure but treatment can help.

- **Cancer :** cancer first develops in the liver. If cancer spreads anywhere except in the liver, it is called secondary liver cancer. Complications of other liver disease especially those that aren't treated may contribute to the development of liver cancer.

- **Cirrhosis:** cirrhosis is the scarring that results from liver disease and other causes of liver damage such as alcohol use disorder. Cystic fibrosis and syphilis may lead to liver damage and eventually, cirrhosis. The liver can develop in response to damage, but this process usually results in the development of scar tissue. The more scar tissues that develops the harder it is for the liver to function properly. In early stages it can be treated but when left unmanaged, it can lead to other complications and become life threatening.
- **Liver failure:** chronic liver failure happens when a significant part of the liver is damaged and can't function properly. Generally, liver failure related to liver disease and cirrhosis happens slowly. Over time one might start to notice the following symptoms:

Jaundice

Diarrhea

Confusion

Fatigue and weakness

Nausea