18/MHS07/044
ANA 202
Answer:
1. We have the portal vein because:
The hepatic portal vein supplies the liver with metabolic substrate and it ensures that substances ingested are first processed by the liver before reaching the systemic circulation.
In this process ingested toxins can be detoxified by the hepatocytes before they are released in the systemic circulation.
The hepatic portal vein also ensures that the liver is the first organ to absorb nutrients just taken in by the intestines.
The hepatic portal vein is not a true vein because it conducts blood to capillary beds in the liver and not directly into the heart.
2. Disease conditions of the liver include:
- **Hepatitis**: Hepatitis is a viral infection of your liver. It causes inflammation and liver damage, making it difficult for your liver to function as it should.

All types of hepatitis are contagious, but you can reduce your risk by getting vaccinated for types A and B or taking other preventive steps, including practicing safe sex and not sharing needles.
There are five types of hepatitis:

- Hepatitis A is typically spread through contact with contaminated food or water. Symptoms may clear up without treatment, but recovery can take a few weeks.
- Hepatitis B can be acute (short-term) or chronic (long-term). It's spread through bodily fluids, such as blood and semen. While hepatitis B is treatable, there's no cure for it. Early treatment is key to avoiding complications, so it's best to get regular screenings if you're at risk.
- Hepatitis C can also be acute or chronic. It's often spread through contact with blood from someone with hepatitis C. While it often doesn't cause symptoms in its early stages, it can lead to permanent liver damage in its later stages.
- Hepatitis D is a serious form of hepatitis that only develops in people with hepatitis B — it can't be contracted on its own. It can also be either acute or chronic.
- Hepatitis E is usually caused by drinking contaminated water. Generally, it clears up on its own within a few weeks without any lasting complications.

- **Fatty liver disease**

Fat buildup in the liver can lead to fatty liver disease.
There are two types of fatty liver disease:

- alcoholic fatty liver disease, which is caused by heavy alcohol consumption
- nonalcoholic fatty liver disease, which is caused by other factors experts are still trying to understand

Left unmanaged, both types of fatty liver disease can cause liver damage, leading to cirrhosis and liver failure. Diet and other lifestyle changes can often improve symptoms and reduce your risk of complications.

- **Autoimmune conditions**

Autoimmune conditions involve your immune system mistakenly attacking healthy cells in your body.
Several autoimmune conditions involve your immune system attacking cells and your liver, including:

- Autoimmune hepatitis. This condition causes your immune system to attack your liver, resulting in inflammation. Left untreated, it can lead to cirrhosis and liver failure.

- Primary biliary cirrhosis (PBC). This results from damage to the bile ducts in your liver, causing a buildup of bile. PBC can lead to eventual cirrhosis and liver failure.
- Primary sclerosing cholangitis. This inflammatory condition causes gradual damage to your bile ducts. They eventually become blocked, causing bile to build up in your liver. This can lead to cirrhosis or liver failure.

- **Genetic conditions**

Several genetic conditions, which you inherit from one of your parents, can also affect your liver:

- Hemochromatosis causes your body to store more iron than it needs. This iron remains in your organs, including your liver. This can lead to damage over a long period of time if not managed.
- Wilson's disease causes your liver to absorb copper instead of releasing it into your bile ducts. Eventually, your liver may become too damaged to store more copper, allowing it to travel through your bloodstream and damage other parts of your body, including your brain.
- Alpha-1 antitrypsin (AT) deficiency occurs when your liver can't make enough alpha-1 antitrypsin, a protein that helps prevent enzyme breakdowns throughout your body. This condition can cause lung disease as well as liver disease. There's no cure, but treatment can help.

- **Cancer**

Liver cancers first develop in your liver. If cancer starts elsewhere in the body but spreads to the liver, it's called secondary liver cancer.

The most common type of liver cancer is hepatocellular carcinoma. It tends to develop as several small sports of cancer in your liver, though it can also start as a single tumor.

Complications of other liver diseases, especially those that aren't treated, may contribute to the development of liver cancer.