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**Group No :- 05**

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**Topic :- Hepatitis**

**Subject :- Path-anatomy**

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# Introduction:-

- ▶ Hepatitis is an inflammation of the liver.
- ▶ However, viral infections are the most common cause of hepatitis, but there are other possible causes of hepatitis.
- ▶ These include autoimmune hepatitis and hepatitis that occurs as a secondary result of medications, drugs, toxins, and alcohol.
- ▶ Autoimmune hepatitis is a disease that occurs when your body makes antibodies against your liver tissue.
- ▶ The World Health Organization (WHO) estimates that 354 million Trusted Source people currently live with chronic hepatitis B and C globally.

# Classification :-

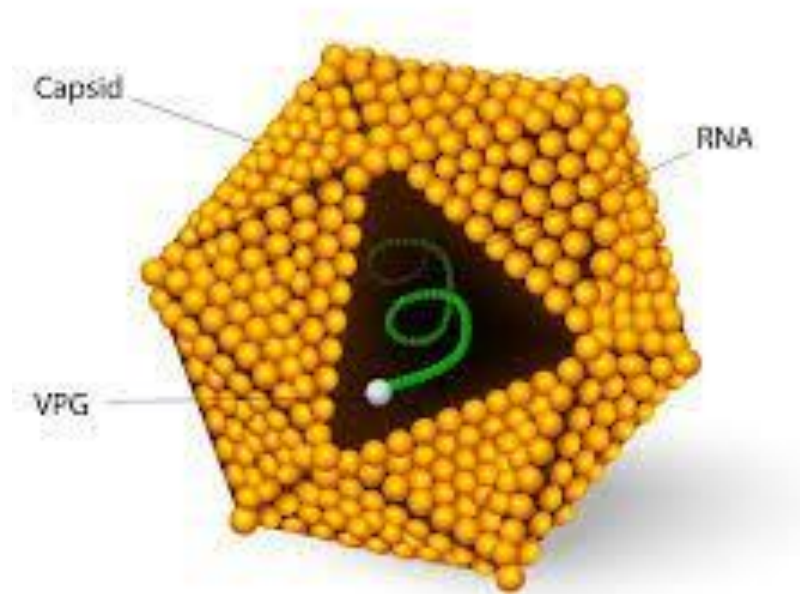
- ▶ The five main viral classifications of hepatitis are hepatitis A, B, C, D, and E. A different virus is responsible for each type of viral hepatitis.

## 1) Hepatitis A :-

Hepatitis A is the result of an infection with the hepatitis A virus (HAV). This type of hepatitis is an acute, short-term disease.

**Common route of transmission :-** exposure to HAV in food or water

## Hepatitis A virus



## Pathology :-

HAV is typically acquired through ingestion (through fecal-oral transmission) and replicates in the liver. After 10 to 12 days, virus is present in blood and is excreted via the biliary system into the feces. Peak titers occur during the 2 weeks before onset of illness.

## 2) Hepatitis B :-

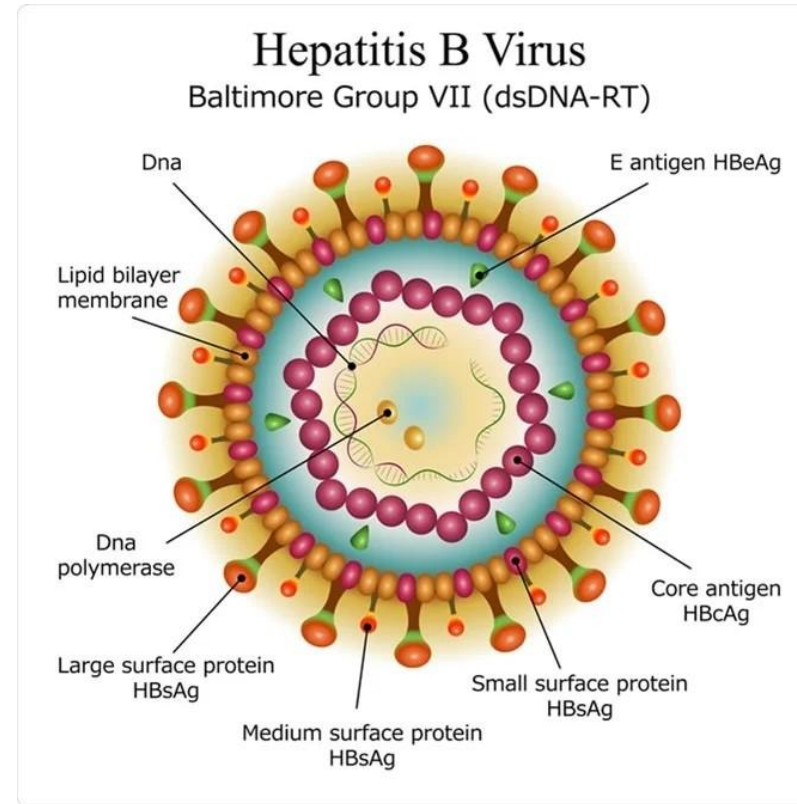
The hepatitis B virus (HBV) causes hepatitis B. This is often an ongoing, chronic condition.

For most people, hepatitis B is short term, also called acute, and lasts less than six months. But for others, the infection becomes chronic, meaning it lasts more than six months.

Having chronic hepatitis B increases your risk of developing liver failure, liver cancer or cirrhosis — a condition that permanently scars the liver.

### **Common route of transmission :-**

contact with HBV in body fluids, such as blood, vaginal secretions, or semen



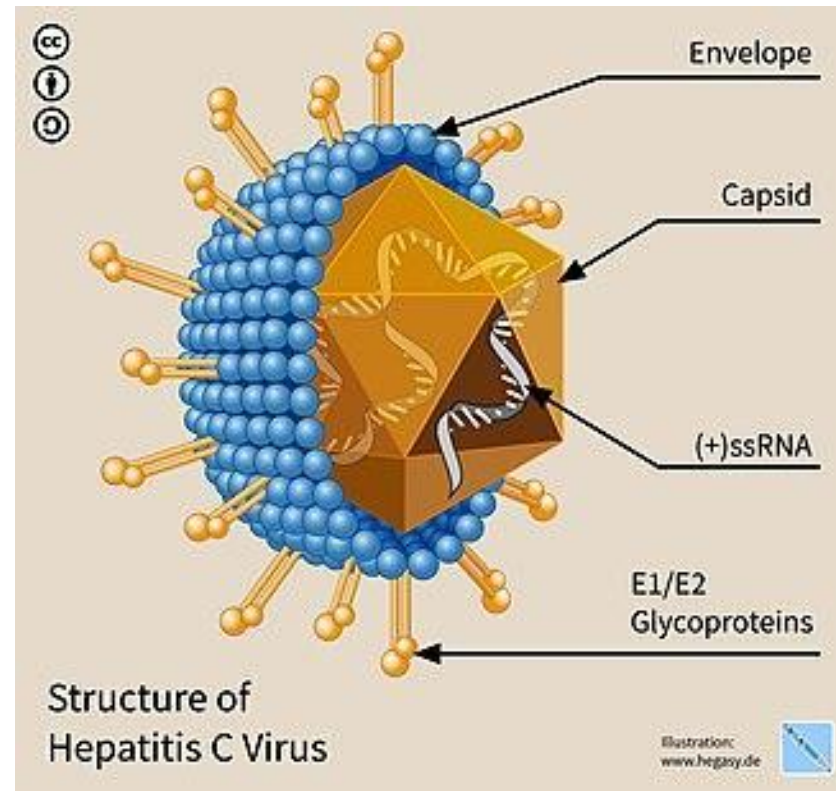
## **Pathology :-**

**The pathogenesis and clinical manifestations of hepatitis B are due to the interaction of the virus and the host immune system, which leads to liver injury and, potentially, cirrhosis and hepatocellular carcinoma. Patients can have either an acute symptomatic disease or an asymptomatic disease.**

### 3) Hepatitis C :-

Hepatitis C comes from the hepatitis C virus (HCV). HCV is among the most common bloodborne viral infections in the United States and typically presents as a long-term condition.

**Common route of transmission :-** contact with HCV in body fluids, such as blood, vaginal secretions, or semen

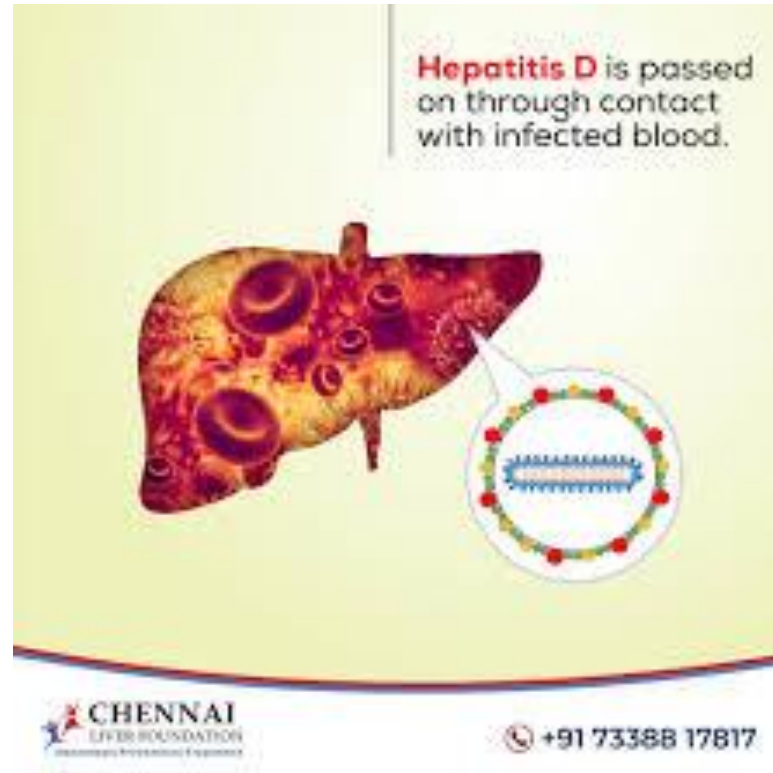


## Hepatitis D :-

This is a rare form of hepatitis that only occurs in conjunction with hepatitis B infection.

The hepatitis D virus (HDV) causes liver inflammation like other strains, but a person cannot contract HDV without an existing hepatitis B infection.

**Common route of transmission :-** contact with blood containing HDV





## 5) Hepatitis E :-

Hepatitis E is a waterborne disease that results from exposure to the hepatitis E virus (HEV). Hepatitis E is mainly found in areas with poor sanitation and typically results from ingesting fecal matter that contaminates the water supply.

**Common route of transmission :-**exposure to HEV in food or water

# Common Causes Of Hepatitis :-

- ▶ Excess alcohol consumption can cause liver damage and inflammation. This may also be referred to as alcoholic hepatitis.
- ▶ The alcohol directly injures the cells of your liver. Over time, it can cause permanent damage and lead to thickening or scarring of liver tissue (cirrhosis) and liver failure.
- ▶ Other toxic causes of hepatitis include misuse of medications and exposure to toxins.

# Symptoms :-

- ▶ If you are living with a chronic form of hepatitis, like hepatitis B and C, you may not show symptoms until the damage affects liver function.
- ▶ By contrast, people with acute hepatitis may present with symptoms shortly after contracting a hepatitis virus.

## **Common symptoms of infectious hepatitis include:-**

- fatigue
- flu-like symptoms
- dark urine
- pale stool
- abdominal pain
- loss of appetite
- unexplained weight loss
- yellow skin and eyes, which may be signs of jaundice

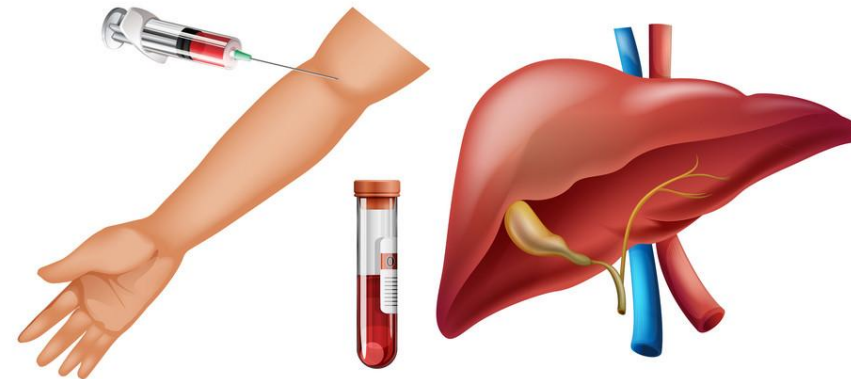
# Diagnosis :-

## 1) Liver function tests :-

Liver function tests use blood samples to determine how efficiently your liver works.

Abnormal results of these tests may be the first indication that there is a problem, especially if you don't show any signs on a physical exam of liver disease. High liver enzyme levels may indicate that your liver is stressed, damaged, or not functioning correctly.

### Liver Function Test



## 2) Other blood tests :-

If your liver function tests are abnormal, your doctor will likely order other blood tests to detect the source of the problem.

These tests can determine Trusted Source if you have infectious hepatitis by checking for the presence of hepatitis viruses or antibodies your body produces to combat them.

### **3) Liver biopsy :-**

When diagnosing hepatitis, doctors will also assess your liver for potential damage Trusted Source. A liver biopsy is a procedure that involves taking a sample of tissue from your liver.

A medical professional may take this sample through your skin with a needle, meaning there is no need for surgery. They will typically use an ultrasound scan for guidance during this procedure.

This test allows your doctor to determine how infection or inflammation has affected your liver.

#### **4) Ultrasound :-**

**An abdominal ultrasound uses ultrasound waves to create an image of the organs within your abdomen.**

# Complications :-

Chronic hepatitis B or C can lead to more severe health problems. Because the virus affects the liver, people with chronic hepatitis B or C are at risk of:

- 1) chronic liver disease
- 2) cirrhosis
- 3) liver cancer

When your liver stops functioning normally, liver failure can occur. Complications of liver failure include:



- ▶ Bleeding disorders
- a buildup of fluid in your abdomen, known as ascites
- increased blood pressure in portal veins that enter your liver, known as portal hypertension
- kidney failure
- hepatic encephalopathy, which can involve fatigue, memory loss, and diminished mental abilities
- hepatocellular carcinoma, which is a form of liver cancer
- death

- ▶ People with chronic hepatitis B and C should avoid alcohol as it can accelerate liver disease and failure.
- ▶ Certain supplements and medications can also affect liver function.
- ▶ If you have chronic hepatitis B or C, check with your doctor before taking any new medications.

**THANK YOU**

