

Hepatocellular Carcinoma Characteristics and Presentation

Hepatocellular carcinoma (HCC) is a malignant liver cancer. Risk factors include cirrhosis, chronic hepatitis B or C infection, aflatoxins, and alcoholic or non-alcoholic liver disease. The presentation of HCC is often asymptomatic but arises mostly in a background of clinical findings associated with cirrhosis. When symptomatic, jaundice and ascites are the most notable.



PLAY PICMONIC

Characteristics

Malignant Liver Cancer

[Malignant-man Liver Tumor-guy](#)

Hepatocellular carcinoma is a malignant cancer of hepatocytes. It is usually uni- or paucifocal (vs metastatic liver cancer which is usually multifocal). On histology, malignant features will be evident such as irregular nuclear membranes, atypical nucleus/cytoplasm ratio, chromatin changes and areas of necrosis.

Risk Factors

Cirrhosis

[C-roses liver](#)

Cirrhosis of the liver is often a precursor of hepatocellular carcinoma. It is a chronic disease of the liver that is associated with the destruction of the lobular and vascular architecture due to inflammatory fibrosis. Functionally, liver cirrhosis is characterized by liver insufficiency and portal hypertension with reduced blood flow to the liver. Intrahepatic portosystemic shunts are formed in progression of the disease.

Chronic Hepatitis B or C

[Crone with Happy-tie-liver \(B\) Bee and Happy-tie-liver \(C\) Cat](#)

Chronic hepatitis B causes a high risk of HCC even without prior progression into liver cirrhosis. Higher viral loads convey a higher risk. Chronic hepatitis due to Hepatitis C leads to progressive destruction of the liver if the course is unfavorable. One fifth of patients will develop cirrhosis of the liver within 20 years. In Europe, more than half of all hepatocellular carcinomas are due to HCV infection.

Aflatoxin

[Aflac-duck with Toxic-green-glow](#)

Aflatoxins are poisons produced by the *Aspergillus flavus* mold and are highly carcinogenic. *Aspergillus flavus* mostly colonizes foods such as nuts or grains. Aflatoxins produced from this mold are a significant risk factor for HCC.

Alcoholic and Nonalcoholic Liver Disease

[Alcoholic-martini with Nun-alcoholic and Liver](#)

Alcoholic Liver Disease (ALD) is the result of alcohol overconsumption and includes fatty liver, alcoholic hepatitis, and chronic hepatitis with liver fibrosis or cirrhosis. It is the major cause of liver disease in Western countries. Nonalcoholic liver disease is defined as excessive fat build-up in the liver

without any clear cause such as alcohol use. In industrialized nations, a higher incidence of non-alcoholic fatty liver disease (associated with type II diabetes mellitus and obesity), is associated with a higher incidence of HCC.

Presentation

Clinical Findings of Cirrhosis

[Sign with Sx-symbol and C-roses-liver](#)

Clinical findings of cirrhosis are usually seen in HCC. These include fatigue, palmar erythema, and caput medusae.

Often Asymptomatic

[Thumbs up](#)

In early stages of the disease, HCC is often asymptomatic or mildly symptomatic with features of cirrhosis. In advanced stages unspecific complaints such as upper abdominal complaints (e.g. feeling of pressure in the upper abdomen due to liver capsule expansion), weight loss and loss of appetite can occur.

Jaundice

[Jaundice-janitor](#)

Yellowing of the skin, mucous membranes and internal organs due to hyperbilirubinemia can be seen. This manifests itself particularly early in the yellowing of the dermis (sclera) of the eyes. The yellow color is caused by the leakage of the bile pigment bilirubin from the blood into the various body tissues.

Ascites

[Ascites Iced-tea](#)

A pathological accumulation of free fluid in the peritoneal cavity, particularly an increasing rate of accumulation, is associated with the development of HCC. An enlarged waist, weight gain, flatulence, bulging abdomen and possibly an umbilical hernia can be seen.