Cancer

Liver Cancer

What is liver cancer?

Cancer develops when cells grow out of control. The most common kind of primary liver cancer, meaning it starts in the liver, is known as hepatocellular carcinoma (HCC). Cancer may also arise elsewhere in the body and spread to the liver, a process known as metastasis. Over time, hepatitis B or C, heavy alcohol use and other causes of liver injury can lead to liver cancer. This type of cancer is often detected late and is difficult to treat.

Who gets liver cancer?

More than 40,000 people a year are diagnosed with liver cancer in the United States, and the rate is rising. While cancer of the liver and bile ducts is the 13th most common type of cancer in the United States, it is the fifth leading cause of cancer death, according to the National Cancer Institute. Worldwide, it is the second leading cause of cancer death.

Men are more than twice as likely as women to develop liver cancer. It is most likely to occur in people over age 60. In the United States, liver cancer is most common among Asians and Pacific Islanders because the prevalence of hepatitis B is high in this group. Latinos and African Americans also have higher rates than white people.

What are the risk factors for liver cancer?

Hepatitis B and C are the most common causes of hepatocellular carcinoma. Hepatitis B virus (HBV) and hepatitis C virus (HCV) multiply in liver cells. Over time, they can lead to serious liver disease, including liver cirrhosis, or buildup of scar tissue.

Hepatitis B can be prevented with a vaccine and treated with antiviral medications. Effective new treatments for hepatitis C can cure the disease and stop liver disease progression. But people who have developed cirrhosis before treatment remain at risk for liver cancer.

Heavy alcohol consumption, exposure to aflatoxin (a substance made by a fungus that grows on grains and peanuts) and other toxic substances, and some inherited conditions can also cause cirrhosis. Fatty liver disease is a growing cause of liver damage leading to liver cancer. Most cases of liver cancer—but not all—occur in people with cirrhosis.

What are the symptoms of liver cancer?

The liver is responsible for vital functions including filtering the blood, processing drugs and

producing important proteins. Cirrhosis and liver cancer can cause many symptoms, including:

- Unexplained fatigue or weakness
- Pain in the upper abdomen
- Nausea or vomiting
- Loss of appetite
- Unexplained weight loss
- Jaundice (yellow skin and eyes)
- Dark urine and pale stools
- Bloated or swollen abdomen
- Abnormal bruising or bleeding
- Bleeding in the throat or stomach
- Mental confusion

However, many people with liver disease do not develop symptoms until its late stages, when it is harder to treat.

How is liver cancer diagnosed?

Liver cancer can be detected through ultrasound exams or other types of imaging. In advanced cases, lumps may be felt in the abdomen. People with liver cancer may have abnormal levels of liver enzymes (ALT) and alpha-fetoprotein (AFP) in their blood.

Regular liver cancer screening using ultrasound and blood tests is recommended for people with advanced liver fibrosis or cirrhosis. Early detection and treatment of liver cancer increase the likelihood of long-term survival.

How is liver cancer treated?

Treatment for hepatocellular carcinoma depends on how advanced the cancer is when it is detected, including how many tumors there are, how large they are and whether they have spread to nearby blood vessels, lymph nodes and other parts of the body.

Surgery: Some small and localized liver tumors can be surgically removed; this is known as resection.

Ablation: Liver tumors may be ablated, or destroyed, using a variety of methods, including heating with radio waves (radiofrequency ablation) and injection of alcohol into the tumor (percutaneous ethanol injection).

Embolization: Chemicals may be used to block or reduce blood flow to tumors.

Radiation: Radiation may be used to shrink tumors, which can help relieve pain and other symptoms. It is often used in conjunction with other forms of treatment.

Chemotherapy: Traditional chemotherapy works by killing fast-growing cells, including cancer cells. It can also destroy rapidly dividing healthy cells, such as those in the gut, bone marrow or hair follicles, leading to side effects including nausea, low blood cell counts and hair loss.

Targeted therapy: Targeted drugs work against cancers with specific characteristics. For example, they may interfere with signaling pathways that regulate cell growth. Targeted treatment is often better tolerated than chemotherapy, but cancer may develop resistance over time.

Immunotherapy: The newest type of treatment helps the immune system fight cancer. For example, some tumors can turn off immune responses against them, and drugs known as checkpoint inhibitors can restore T cells' ability to recognize and destroy cancer cells. The risk with this type of treatment is that it can trigger excessive immune responses against healthy tissue as well. Drugs known as PD1 checkpoint inhibitors have shown some promise for people with HCC. However, current immunotherapy drugs work for only a subset of patients, and it is hard to predict who will benefit.

Liver transplantation: Liver transplants remove the diseased organ and replace it with a donated liver. Transplantation can potentially cure liver cancer, but donor livers are in short supply and waiting lists are long.

For more information about liver cancer, please visit our sister site Cancer Health.

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