What You Need to Know About the Different Types of Liver Cancer

by KRYSTINA OSTERMEYER

Types of Liver Cancer

When we here the terms "lung cancer," "breast cancer," and "liver cancer," we instantly get scared — and for good reason. However, for all of these cancers (and most others), there are actually several types of cancers

If you've recently become diagnosed with liver cancer, your specific type of cancer is diagnosed based on the type of cancerous cells. There are five main types of liver cancers.

Hepatocellular Carcinoma (HCC)

Hepatocellular carcinoma (HCC) is the most common type of liver cancer. It accounts for up to 75 percent of all liver cancers.

HCC is called *hepatocellular carcinoma* because it originates in the hepatocellular cells of the liver, which are the main cells of the liver. This type of cancer typically occurs due to infections of the liver, such as hepatitis B or C, or alcoholism with subsequent cirrhosis.

Symptoms

Some people have no symptoms of liver cancer. However, if symptoms are noted, they commonly include:

- Jaundice
- Blood in the stool
- Weight loss without trying
- Fatigue
- Ascites (fluid in the abdomen)

Treatment

Prognosis for HCC is excellent if it is caught early. If caught early, it can be treated with surgery and/or transplant. In more advanced cases when cure is not the goal, the treatment will be aimed at increasing life expectancy and quality of life.

There are a variety of surgical options for HCC. A partial hepatectomy can be performed; this removes the part of the liver that as cancer. If this is not feasible, a liver transplant may be recommended, which is a much larger surgery. This surgery has a longer hospitalization time and requires long-term anti-rejection medications post-transplant. It also requires a donor from someone who has recently passed away; you could be on a donor list for a long time before it is your turn.

Radiation may be recommended. This uses high-energy rays to kill cancer cells. Two types may be used:

- *Internal radiation*: Tiny radioactive particles are injected into the artery that supplies the liver with blood. These particles destroy the tumor in the liver. A doctor injects the radiation.
- *External radiation*: a machine is aimed at the liver and the rays penetrate through the skin.

Chemotherapy may be prescribed. For HCC, chemoembolization is often the prescribed type of chemotherapy. Chemoembolization is when a doctor places the chemotherapy drugs directly into the liver.

Percutaneous ethanol injection, also known as “alcohol injection," uses an ultrasound machine to allow a physician to inject alcohol into the liver. This injection of alcohol destroys the cancer.

Fibrolamellar HCC

This type of liver cancer is rare. However, it is more responsive to cancer treatments than other types of liver cancer, IF it is caught in the early stages.

Fibrolamellar HCC is so rare that it is considered “ultra-rare” — it affects one in 5,000,000 people, which equates to about 1,000 people annually. It most commonly occurs in adolescents and young adults who have no history of any type of liver disease.

Symptoms

Symptoms of fibrolamellar HCC include:

- Abdominal pain
- Shoulder pain
- Back pain
- Loss of appetite with weight loss
- Jaundice
- Palpable liver mass
- Occasionally, gynecomastia in boys and men (there may be a hormonal influence of the fibrolamellar cells that causes gynecomastia)

Treatment

Treatment is aimed at cure of the cancer. This is not always possible, and if cure is not possible, the goal then is to slow the progression of the cancer.

If possible, surgical intervention is performed to remove the tumor. Transplant of the liver is also ideal. Because the cancer is so rare, there is no standard of care when it comes to treatment plans so all patients are treated differently. Therapies that have been utilized for fibrolamellar HCC include chemotherapy, immunotherapy, cryoablation, radiofrequency ablation, external beam ablation, embolization, nanoknife, and percutaneous hepatic perfusion.

Cholangiocarcinoma

This type of liver cancer occurs in the bile ducts of the liver. These bile ducts connect the liver to the gallbladder.

This type of cancer occurs in about 10 percent to 20 percent of all liver cancers. It can be further broken down in to intrahepatic bile duct cancer (within the bile ducts) or extrahepatic bile duct cancer (outside of the bile ducts).

Symptoms

The symptoms of cholangiocarcinoma can mimic other conditions, such as gallstones and hepatitis. Some of these symptoms overlap other types of liver cancers, but others are unique to cholangiocarcinoma:

- Jaundice
- Itching
- Stools that are pale in color and have a greasy-looking consistency
- Dark urine

Next page: cholangiocarcinoma symptoms continued, and other types of liver cancer.

Cholangiocarcinoma

- Abdominal pain
- Weight loss and loss of appetite
- Fever
- Nausea and vomiting

Treatment

Treatment for cholangiosarcoma is based on the extent of the cancer. Surgery is the main goal because it is the curative option, according to *American Cancer Society.*

- **Resectable cancer:** cancer that can be removed entirely through surgery, judging by diagnostic studies, such as CT scans, MRIs and x-rays.
- **Unresectable cancer:** cancer that cannot be removed entirely by cancer because it has spread or is in a difficult place to remove.

When a tumor is resectable, it is generally stage 0, I, II, or possibly stage III. A staging laparoscopy is often done initially to make sure the tumor is, in fact, resectable. If the tumor is deemed resectable, the exact type of surgery will depend on the extent of the tumor and the location of the tumor in the bile duct. If a patient has jaundice, a stent may be placed in the bile duct to allow the bile to flow better before the resection.

Sometimes, chemotherapy and radiation are performed after surgery to prevent the surgery from coming back. Research does not prove that this is actually helpful, so it is typically used if physicians are not sure if all of the cancer has been removed.

When a tumor is unresectable, it is generally stage III or IV. Sometimes, earlier stages of cholangiosarcoma can be deemed “unresectable” if they are not healthy enough to undergo a major surgery.

Sometimes a surgery begins and then it is found that the tumor is, in fact, unresectable. This may be because the cancer has spread further than anticipated. In this case, the surgery may be stopped because furthering the surgery may have negative side effects.

For unresectable cholangiosarcoma, sometimes a transplant is indicated. In this case, chemotherapy and radiation may be performed to shrink the tumor before the transplant.

When a transplant is not indicated, chemotherapy and radiation may be given in an attempt to shrink the tumor. However, the tumor will typically grow again so treatment is often aimed at symptom management.

Hepatic Angiosarcoma

This type of cancer is also known as hemangiosarcoma. It accounts for only one percent of all liver cancers.

Angiosarcomas begin in the blood vessels. It spreads rapidly and is thus diagnosed at a late stage, making it difficult to treat.

Because it spreads quickly and is diagnosed at a late stage in the disease process, the prognosis is poor – most

patients die within two years of diagnosis.

Symptoms

Angiosarcomas can be present in the vessels of various organs. Because of the nonspecific location of angiosarcomas, the symptoms are also nonspecific, making it difficult to diagnose.

Hepatic angiosarcoma originates in the endothelial cells of the liver. It *may* cause a palpable mass. Once the mass has been felt, it has reached a late stage because the cancer progresses quickly.

Treatment

Treatment for hepatic angiosarcoma can be complicated. According to the *World Journal of Surgical Oncology,* "the therapeutic guideline for liver angiosarcoma has not been set up; partial liver resection to remove tumor radically still remains to be the cornerstone of treatment options."

Hepatic angiosarcoma is known for being difficult to stage due to its rapid progression. When it is successfully treated, it has a high rate of recurrence. It is also resistant to traditional therapies, such as chemotherapy and radiation.

In a case study presented by *World Journal of Surgical Oncology,* an 83-year-old female had abdominal pain for 2 months – her only symptom. When the pain was severe, she went to the emergency department. After a thorough work-up, she was found to be in shock due to her tumor rupturing. Emergent embolization was performed. After she was stabilized, a partial hepatectomy was performed. The patient did not receive chemotherapy or radiation and at the time of publication, had no recurrence of the cancer.

Chemotherapy may be helpful for hepatic angiosarcoma if the cancer has spread to other organs. Radiation may be performed palliatively, as a pain relief measure. Neither are thought to have a particularly curative effect on the cancer itself. Liver transplantation is also not recommended because this type of cancer has a high recurrence rate.

Secondary Liver Cancer

This type of liver cancer is also known as metastatic liver cancer. It occurs when cancer spreads to the liver from another place in the body.

Secondary liver cancer classically spreads from the colon or colorectal cancer, as more than half of these types of cancers will go on to develop liver cancer.

Symptoms

Symptoms associated with secondary liver cancer can be caused by the cancer itself or cancer treatment. The list is extensive – you may have quite a few of the symptoms, or only a few:

- Jaundice of the skin and the eyes accompanied by itching
- Malaise
- Right-sided abdominal pain
- Loss of appetite and weight loss
- Hiccups
- Abdominal swelling

Treatment

The treatment with secondary liver cancer will depend on the primary (first) type of cancer you had and the goal of treatment. For example, if the cancer has spread, but only minimally, the goal still may be cure. If the cancer has

spread extensively, the goal will most likely be palliative – to make you comfortable.

As with all of the aforementioned cancers, surgery, chemotherapy, radiation, and chemoembolization are all treatment options available – depending on your cancer – amongst various other options.

If you choose to aggressively treat your secondary liver cancer, keep in mind that you may stop treatment if and when you want to, if it becomes difficult to cope.

Palliative care is always an option. *The Center to Advance Palliative Care* defines palliative care as "…specialized medical care for people with serious illness. This type of care is focused on providing relief from the symptoms and stress of a serious illness. The goal is to improve quality of life for both the patient and the family."

Regardless of the time of liver cancer you have, know that there are a multitude of treatments available to you. Seek expert advice and ensure that you have a treatment plan that best fits your goals.