

Hepatocellular Carcinoma Diagnosis and Management

Hepatocellular carcinoma (HCC) is a malignant liver cancer. Key diagnostic findings include an increased AFP and hypervascularity in a background of cirrhosis on ultrasound. Abdominal CT or MRI can be used to better evaluate tumor margins. Management consists of surgical resection, which may include orthotopic liver transplantation. Otherwise, new interventional radiology, image-guided procedures such as TARE and TACE can be considered in suitable candidates. Surveillance is important to monitor for recurrence. Unfortunately, since most HCCs are diagnosed in later stages, this disease has a poor prognosis.



PLAY PICMONIC

DIAGNOSIS

Increased AFP

[Up-arrow AFP-poster](#)

Alpha-fetoprotein (AFP) levels in the blood can be used to monitor for progression of hepatocellular carcinoma. It can also be used to monitor for recurrence of disease.

Ultrasound

[Ultrasound-machine](#)

On ultrasound, HCC has variable echogenicity. Vascular invasion can be visualized along with the tumor. Cirrhosis of the liver as a secondary finding is often seen.

Abdominal CT or MRI

[Cat-scanner and M-R-eyes Machine](#)

CT or MRI of the abdomen can be used to visualize tumor margins better. It can also be used for staging e.g. local invasion, portal vein involvement, or metastasis.

MANAGEMENT

Surgical Resection

[Surgeon](#)

Surgical resection is a potentially curative therapy indicated in patients without vascular invasion, metastases, or impaired liver function.

Transplantation

[Train-plant](#)

Liver transplantation is another possible treatment. Depending on the availability of donor organs, a waiting period of 6-18 months can be expected. For this reason, patients are treated with ablative methods until they are transplanted to prevent tumor growth or to reduce the size of the tumor. This is also known as “downsizing”.

Image-guided Procedures

[Doctor with Images](#)

Some image-guided procedures via interventional radiology can be conducted to either down-size or potentially as a primary treatment option for appropriately selected candidates. Procedures like transarterial chemoembolization (TACE) and radioembolization (TARE) involve the use of catheters to deliver targeted therapy directly to the tumor thus minimizing wide parenchymal effects.

Surveillance

[Surveillance-camera](#)

HCC surveillance aims to detect the disease in an early stage and to catch it while it is still resectable. A combination of ultrasound and AFP is recommended.

CONSIDERATIONS

Poor Prognosis

Gravestone

Since most HCCs are often discovered late and the underlying cirrhosis of the liver limits the therapeutic options, treatment of the disease is still difficult and the prognosis is unfavorable.