

RADIOFREQUENCY OR CRYOABLATION OF LIVER TUMORS

SUR709.029

POSTED DATE: 6/11/2003 EFFECTIVE DATE: 8/15/2003

COVERAGE:

Radiofrequency or cryoablation of either primary or metastatic liver tumors is considered **experimental or investigational**.

Exception:

Coverage will be allowed for radiofrequency or cryoablation of either primary or metastatic carcinoid liver tumors for the treatment of carcinoid tumor(s) of the liver where the symptoms of carcinoid syndrome are severe and debilitating.

DESCRIPTION:

Hepatic tumors can arise either as primary liver cancer or by metastasis to the liver from other tissues. Local therapy for hepatic metastasis is indicated only when there is no extra-hepatic disease, which rarely occurs for patients with primary cancers other than colorectal carcinoma or certain neuroendocrine malignancies. Presently, surgical resection with adequate margins or liver transplantation is the only treatment available with demonstrated curative potential. However, the majority of hepatic tumors are unresectable at diagnosis, due either to their anatomic location, size, number of lesions, or underlying liver reserve. Both radiofrequency and cryosurgical ablation have been investigated as treatments for unresectable hepatic tumors. Radiofrequency ablation involves inserting an electrode into the center of the tumor to deliver alternating current. Protein denaturation and coagulation are the ultimate causes of cell death. Radiofrequency ablation may be performed percutaneously, laparoscopically or as an open procedure. Cryosurgical ablation involves the freezing of target tissues, most often by inserting into the tumor a probe through which coolant is circulated. Cryosurgical ablation is performed primarily as an open surgical technique.

Note: Hyperthermia may be performed in conjunction with the above procedures.

RATIONALE:

This policy is based on two 2000 TEC assessments that offered the following observations and conclusions regarding various applications of radiofrequency and cryosurgical ablation:

Radiofrequency Ablation

For patients with unresectable hepatocellular carcinoma, the data was considered insufficient to permit scientific conclusions.



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Specifically, the follow up data in the 9 reported studies was short (<12 months in 7 of 9 studies) that adequate comparisons could not be made to other treatment options, such as percutaneous ethanol infusion. There was insufficient data regarding the use of radiofrequency ablation combined with another therapy (i.e. resection) in the treatment of patients with hepatocellular carcinoma.

In patients with hepatic metastases, there was insufficient data to permit any conclusions. The results of the studies appear no better than results reported after neoadjuvant therapy. However, both survival estimates for either therapy are based on small samples without direct comparison of the interventions. There was insufficient adequate data regarding the use of radiofrequency ablation combined with another therapy (i.e. resection) in the treatment of patients with hepatic metastases.

Cryosurgical Ablation

The TEC assessment evaluated cryosurgical ablation in a variety of clinical settings:

- patients with unresectable hepatocellular carcinoma (HCC) cholangiocarcinoma or liver metastases treated with cryosurgical ablation (CSA) as a sole therapy,
- as an adjunct to resection or
- combined with therapies other than resection.

There was insufficient data to permit scientific conclusions for all of the above applications.

Carcinoid Syndrome

Symptoms associated with carcinoid syndrome may be severe and incapacitating as these tumors frequently secrete excessive amounts of vasoactive substances, including serotonin, bradykinin, histamine, prostaglandins and polypeptide hormones. Symptoms include: uncomfortable flushing, (often precipitated by emotion or ingestion of food, hot water or alcohol). Skin color changes may occur ranging from pallor or erythema to cyanosis. There may be abdominal cramps with recurrent diarrhea that could lead to malabsorption and arthropathy. A few patients have asthmatic wheezing and some have decreased libido and impotence. For humanitarian reasons a decision was made to allow Radiofrequency or Cryoablation of Liver Tumors for a diagnosis of Carcinoid syndrome where symptoms are severe and incapacitating.

PRICING:



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None

REFERENCE(S):

- Blue Cross and Blue Shield Association Technology Assessment Program; Volume 15, No. 14 November 2000 "Cryoablation of Unresectable Hepatic Tumors."
- Blue Cross and Blue Shield Association Technology Assessment Program; Volume 15, No. 15 November 2000 "Radiofrequency Ablation of Unresectable Hepatic Tumors."

DISCLAIMER:

State and federal law, as well as contract language, including definitions and specific inclusions/exclusions, takes precedence over Medical Policy and must be considered first in determining coverage. The member's contract benefits in effect on the date that services are rendered must be used. Any benefits are subject to the payment of premiums for the date on which services are rendered. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.

HMO Blue Texas physicians who are contracted/affiliated with a capitated IPA/medical group must contact the IPA/medical group for information regarding HMO claims/reimbursement information and other general polices and procedures.