



Hepatocellular Carcinoma肝癌(英文)

Introduction

Hepatocellular carcinoma (HCC) is the sixth most common cancer worldwide and the leading cause of death amongst cirrhotic patients. HCC develops in a cirrhotic liver in 80% of cases, and this pre-neoplastic condition is the strongest predisposing factor.

Chronic hepatitis B virus (HBV) infection is the predominant risk factor in Asia and Africa, and chronic hepatitis C virus (HCV) infection in Western countries and Japan is another risk factor.

Chronic HBV carriers have a 100-fold relative risk for developing HCC, with an annual incidence rate of 2 – 6 % in cirrhotic patients. 20 – 30 % of HCV-infected individuals will develop cirrhosis. Once cirrhosis is established, the annual incidence of HCC is of 3 – 5 % and one third of them will develop a HCC over their lifetime.

Etiology

1. Liver cirrhosis (viral or alcoholic)
2. Chronic hepatitis B
3. Chronic hepatitis C
4. Aflatoxin B1 mis-intake

Prevention

1. Primary prevention: quit alcohol, prevent viral hepatitis B or C infection and hepatitis B vaccination, avoid mis-intake fungal infected peanut.
2. Secondary prevention: treat hepatitis B or C to prevent cirrhosis.

Clinical Manifestations

1. Early small HCC : no symptom and sign or hepatitis or cirrhosis related symptoms
2. Advanced HCC : mass effect with dullness, pain, or body weight loss

Surveillance

1. Surveillance makes higher applicability of curative therapies
2. Surveillance with ultrasound every 6 months for detection of early HCC is recommended in cirrhotic patients and other risk groups.
3. Serum AFP levels have low capacity of identifying new cases

Diagnosis

1. Non-cirrhotic patients : pathology
2. Cirrhotic patients : 4-phase dynamic CT or MRI imaging in nodules > 2 cm, and coincidental findings by two imaging techniques in nodules between 1 and 2 cm are considered diagnostic.

Staging

There are more than 7 staging systems and Barcelona Clinic Liver Cancer (BCLC) classification is widely used

1. Early stages : single ≤ 2 cm, single 2–5 cm, 3 nodules ≤ 3 cm
2. Intermediate Stage : multinodular asymptomatic tumors without an invasive pattern
3. Advanced Stage : symptomatic tumors or ECOG 1–2, or vascular invasion or extrahepatic spread
4. End-stage HCC : Okuda stage III, or Performance Status of 3–4 or Child–Pugh C

Treatment

1. Curative therapy:
 - (1) Resection: Hepatic resection is the treatment of choice in non-cirrhotic patients.
 - (2) Transplantation: transplantation is the treatment choice for patients with small multinodular tumors (3 nodules < 3 cm) or those with advanced liver dysfunction.

(3) Local ablation: Radiofrequency ablation or microwave ablation provides better local control of HCC compared with percutaneous ethanol injection.

2. Palliative therapy:

(1) Transarterial chemoembolization: TACE is the most widely used primary treatment for unresectable HCC.

(2) Radiation therapy: Internal radiation with Y-90 shows a median survival for advanced HCC cases of 12 months.

(3) Systemic therapy: Sorafenib, a multikinase inhibitor, has shown survival benefits in advanced HCC. Hormone and conventional external beam radiation have not shown survival benefits in HCC.

Recurrence

Recurrence rate is higher in overt HCC patients and no adjuvant therapies after complete

resection/local ablation are currently accepted as standard care in HCC.

Conclusion

Advanced HCC patients have high mortality. Trying to find HCC in early stage by regular surveillance with ultrasonography makes curative treatment possible. However, avoiding or treating viral hepatitis infection and quit alcohol drinking are the best way to prevent HCC.

Reference

Llovet JM, Bruix J. Journal of Hepatology 48 (2008) S20–S37