REVIEW ARTICLE

# SLHPBA Guidelines for the management of hepatocellular carcinoma in Sri Lanka - consensus statement

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Sri Lanka has a rising population of patients with chronic liver cell disease. Incidence of metabolic liver disease in the country is one of the highest in the world [1]. Over the last 5 years, the number of HCC cases reported has steadily increased. HCC has become a disease of discussion due to rise in the incidence, recent accessibility of all treatment options, and availability of trained clinicians in managing HCC [2].

There are regional guidelines published based on data from Europe, North America and East Asia. Infective hepatitis is rare in Sri Lankan patients. Apart from having a unique etiology, many practical difficulties are faced when directly applying these guidelines in the context of the local setting. In this background, Sri Lanka Hepato Pancreatico Biliary Association (SLHPBA) organized a consensus meeting to modify the already established clinical guidelines in a manner applicable to Sri Lanka.

In formulating the guidelines, feasibility and the local pattern of disease were considered. Overseas experts representing North America, Europe and India participated in the discussions. As local representatives, members representing Society of Gastroenterology, Radiology, Oncology, Pathology and General Surgery, participated in the discussions. Already published European association of study of liver disease guidelines [3], Asia Pacific clinical practice guidelines 2017 [4] and American association of study of liver disease guidelines 2016 [5], were used as a baseline platform. Each point was taken up, discussed and debated prior to an agreement.

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**SLHPBA Guidelines for the management of hepatocellular carcinoma in Sri Lanka - consensus statement**

**1. Prevention of HCC in Sri Lanka**

**a.Hepatitis B vaccination**

Even though incidence of Hepatitis B is extremely low, it is recommended to continue hepatitis B vaccination which is currently included in the national immunization program.

**2. Screening for HCC in Sri Lanka**

**a. Screening for HCC in cirrhotics**

**i. Six-monthly ultrasound scanning is recommended in screening cirrhotic patients.**

- It is recommended to use a specially prepared request form within institutions indicating a clear clinical history.

**b. Screening of high risk NASH groups.**

**i.Diabetics who are older than 40 years with elevated AST/ALT may be subjected to ultrasound scan screening.**

- Frequency of screening is to be decided by the clinician as firm data is not yet available.

**c.Hepatitis screening in Sri Lankan patients.**

- Considering the extremely low incidence, screening for hepatitis B and C is likely to yield negative results. Non-availability or delay in these reports should not delay the management of HCC.

**d.Place of alpha feto protein (AFP)**

- Alpha feto protein has limited value in screening for HCC.
- Alpha feto protein is useful as an adjunct for imaging.
- Alpha feto protein is an important test in prognostication of HCC.

**3. Diagnosis of HCC**

**a. Cirrhotic patients**

**i. Lesions over 2cm –** Having a typical appearance in 4 phase CT or MRI

**ii. Lesions less than 2 cm -** Typical appearance in CT and MRI

**iii. Lesions over 2 cm –** without typical appearance in CT or MRI needs histological assessment.

1. To differentiate well differentiated HCC from regenerating nodules, immunohistochemistry with CK 7 and CK 8 are recommended.

**iv. Lesions less than 2 cm without typical CT or/and MRI appearance**

1.During follow – up, imaging should be done by a consultant radiologist every three months.
2.If lesion enlarges histological assessment is recommended.
3. After 2 years of follow-up if the lesion does not enlarge routine surveillance is recommended.

**v. Any lesion with AFP over 400 ng/ml is diagnostic of HCC.**

**vi. PET scan has only a limited role in diagnosing HCC.**

**vii.Patients with portal vein thrombosis may not demonstrate a typical enhancement pattern in CT or MRI**

**4. Treatment of HCC is best decided in a multi disciplinary meeting with a HPB surgeon, Hepatologist, Radiologist and an Oncologist**

a. Non cirrhotic HCC

i. Surgical resection is recommended for any size of tumours that are within limitations of resectabality.
ii.Tumours with more than three nodules – surgery is recommended in selected patients.
iii. Presence of main portal vein invasion is a relative contraindication for surgical resection.
iv. Diffusely infiltrating hepatomas have a poor outcome after resection

b. In cirrhotic HCC – Child - Pugh A

i. Surgical resection / ablation

1. All resectable lesions – Surgical resection is recommended for patients with stable liver functions and adequate residual volume. As a guide to liver function following may be used.

i. Clinical parameters (history of ascites, encephalopathy)
ii. Platelet count (less than 100,000 CC)
iii. Portal venous pressure gradient (over 12 mmHg)
iv. Bilirubin level (above the reference range)

2.In lesions less than 3 cm thermal ablation may be used in selected patients
3.Alcohol ablation is recommended for lesions smaller than 2 cm.
4.When total number of tumour nodules is over 3 surgical resection is best avoided.

ii.Trans arterial therapy (trans arterial chemo embolization/radio-embolization).

1.This is recommended in patients whom surgical and ablative treatment is contra indicated.
*It is best avoided in following patients*

a.Tumours over 10cm -These have higher complications and poor response to TACE
b.History of encephalopathy
c.History of moderate to gross ascites
d.Raised bilirubin over three times the upper level.

2.Trans arterial chemo infusion or bland embolization is not recommended.

iii. Sorafenib

1.Can be offered to patients with unresectable disease.
2.Has no place as an adjuvant treatment for surgery or ablation
3.Can be used for TACE refractory tumours.

c. Cirrhotic - Child–Pugh B and C

i.Only minor resections are considered in Child – Pugh B stable patients.
ii. There is no place for surgery in Child – Pugh C
iii. Ablation should be considered in Child – Pugh B patients
iv. Patients with Child – Pugh C are candidates for palliative care.
v. There is no place for Sorafenib in Child – Pugh C cases.

d. Liver transplantation

i.Considered for Child Pugh B (or selected C) patients within Milan criteria

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