



A new era for hepatocellular carcinoma

Riccardo Memeo^{1^}, Antonio Rosario Pisani^{2^}, Michele Ammendola^{3^}, Nicola de'Angelis^{4^},
Riccardo Inchingolo^{5^}

¹Division of Hepato-Pancreato-Biliary Surgery, "F. Miulli" General Hospital, Acquaviva delle Fonti, Bari, Italy; ²Nuclear Medicine Unit, Interdisciplinary Department of Medicine, University of Bari 'Aldo Moro', Bari, Italy; ³Science of Health Department, Digestive Surgery Unit, University "Magna Graecia" Medical School, Catanzaro, Italy; ⁴Unit of Colorectal and Digestive Surgery, DIGEST Department, Beaujon University Hospital (AP-HP), University Paris Cité, Clichy, France; ⁵Interventional Radiology Unit, "F. Miulli" Regional General Hospital, Acquaviva Delle Fonti, Bari, Italy

Correspondence to: Riccardo Inchingolo. Interventional Radiology Unit, "F. Miulli" Regional General Hospital, Bari, Italy. Email: riccardoin@hotmail.it.

Comment on: Kudo M, Kawamura Y, Hasegawa K, *et al.* Management of Hepatocellular Carcinoma in Japan: JSH Consensus Statements and Recommendations 2021 Update. *Liver Cancer* 2021;10:181-223.

Keywords: Hepatocellular carcinoma (HCC); guidelines; Consensus statement; Japan Society of Hepatology

Submitted Jan 01, 2023. Accepted for publication Jan 11, 2023. Published online Jan 16, 2023.

doi: 10.21037/hbsn-23-10

View this article at: <https://dx.doi.org/10.21037/hbsn-23-10>

Hepatocellular carcinoma (HCC) is one of the most frequent cancers worldwide among patients with cirrhosis, and its management and treatment is in continuous evolution due to the introductions of new therapeutic option. It represents most common primary malignancy of the liver, developing in 90% of cases of an underlying liver disease (1) [chronic HBV and HCV hepatitis, dysmetabolic liver disease]. In this setting, the prevention plays a key role, with the treatment of the underlying liver disease and strict follow up in risk patient with semestral liver ultrasound, blood test and in some cases alpha-fetoprotein (AFP) are necessary for a correct surveillance in risky patients. Despite this encouraging aspect, the meticulous assessment of tumour burden and underlying liver disease remains fundament in the choice of correct treatment, to achieve the best treatment for patient. In case of early diagnosis, patients could benefit of curative treatment that varies from liver transplant, liver resection or ablative treatment. The evolution in recent years has permitted the integration of new technology like robotic, genomic and innovation in cancer profiling that represent the future of treatment of HCC. All these strategies need to be integrated in a multidisciplinary assessment of the patient, that must consider patient characteristics, tumor burden and patient benefit.

In this setting, the necessity to standardize the

management in clinical practice of patients with HCC is extremely important and requires guidelines based on literature, clinical data, expert opinion, and real-word clinical practice as in JSH Consensus Statements and Recommendations 2021 Update (2).

This paper summarizes al the main aspect of the management of HCC in Japan, considering aspect of global management of patient who need a multidisciplinary management of HCC. The description of the management starts from the analysis of the pathology, including the process and development of the cancer, that plays an important role in the identification of early HCC, stressing the role pathological appearance, vascular architecture, and important consideration in fatty change. The main objective should become the early detection of HCC, thanks to the improvement of MRI (Gd-EOB-DTPA-enhanced MRI) (3). The indirect identification of malignant prognostic factors as tumour differentiation, size and malignant grade could play an important role in preventive treatment of potentially premalignant lesions.

Diagnosis could be evaluated with the use of tumor markers, and apart from AFP, classically used for diagnosis and follow-up in HCC patients, Lens culinaris-agglutinin-reactive fraction of AFP (AFPL3), and protein induced by vitamin K absence-II/des-gamma-carboxy prothrombin

[^] ORCID: Riccardo Memeo, 0000-0002-1668-932X; Antonio Rosario Pisani, 0000-0002-3335-9541; Michele Ammendola, 0000-0001-8043-6100; Nicola de'Angelis, 0000-0001-8622-4328; Riccardo Inchingolo, 0000-0002-0253-5936.

(PIVKA-II/DCP) are often elevated in HCC, and the positivity rate of these markers increases with disease progression staging and could be useful to detect and diagnose HCC, eventually combining the value of all of them. Extremely important remains the role of imaging diagnosis, especially with techniques capable to study the vascularisation of the nodule, as computed tomography (CT) scan and magnetic resonance imaging (MRI). Increasing interest is gaining the use of contrast enhanced ultrasound (CEUS) with Sonazoid, and all this instrument are important to reduce the rate of biopsy to obtain diagnosis of HCC.

Another important aspect, in the management of HCC patient is to understand the quality of his pathologic liver, to assess the best available treatment in function of the capability to tolerate the liver damage grade induced by the treatment. Apart from Child Pugh score, some other test are available such as indocyanine green (ICG) retention rate, Albumin-bilirubin (ALBI) grade, as well as other score as ALBI-TNM and ALBI-T.

These tools must be used to deeply understand patient and residual liver function in treated patient for HCC or high risk patient. For this patient, surveillance is extremely important, respecting the classic algorithm with 3–4 months evaluation of ultrasound, tumour markers and dynamic CT/MRI every 6–12 months in case of extremely high risk patient, or ultrasound and tumor marker every six months in case of high risk patient.

In case of diagnosis, surgical or locoregional treatment should be preferred as curative treatment, and in selected cases liver transplant represent the best therapeutic option. Trans-arterial chemoembolization (TACE) represent a valid alternative in more fragile patients, with multiple nodules with localized tumour. In recent period, good results has been shown from the association of TACE with systemic therapies, that actually the gold standard with atezolizumab bevacizumab in patients not amenable for surgical resection, liver transplantation, locoregional treatment.

The role of this paper is to guide all physicians interested in the management of HCC through the different aspects of this complex pathology, to present a global vision of the cancer, considering all the possibilities that we can offer to a patient to treat an HCC. the final idea is the necessity of a systemic staging system followed by a personalized treatment. the variety and differences in presentation and management of HCC in cirrhotic patient requires the referral of this patient in a tertiary centers with a specialised multidisciplinary team that could choose the best treatment for patients in a setting of all available treatments.

Acknowledgments

Funding: None.

Footnote

Provenance and Peer Review: This article was commissioned by the editorial office, *Hepatobiliary Surgery and Nutrition*. The article did not undergo external peer review.

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at <https://hbsn.amegroups.com/article/view/10.21037/hbsn-23-10/coif>). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Open Access Statement: This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

References

1. Reig M, Forner A, Rimola J, et al. BCLC strategy for prognosis prediction and treatment recommendation: The 2022 update. *J Hepatol* 2022;76:681-93.
2. Kudo M, Kawamura Y, Hasegawa K, et al. Management of Hepatocellular Carcinoma in Japan: JSH Consensus Statements and Recommendations 2021 Update. *Liver Cancer* 2021;10:181-223.
3. Inchingolo R, Faletti R, Grazioli L, et al. MR with Gd-EOB-DTPA in assessment of liver nodules in cirrhotic patients. *World J Hepatol* 2018;10:462-73.

Cite this article as: Memeo R, Pisani AR, Ammendola M, de'Angelis N, Inchingolo R. A new era for hepatocellular carcinoma. *HepatoBiliary Surg Nutr* 2023;12(1):135-136. doi: 10.21037/hbsn-23-10