

Chronic Liver Diseases and Liver Cancer: An Update in 2015

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The 12th Japan–Korea Liver Symposium was held in Osaka on July 5, 2015, in conjunction with the 6th Asia-Pacific Primary Liver Cancer Expert Meeting.

Nishida et al. [1] evaluated the antiviral response of triple therapy using peg-interferon, ribavirin and simeprevir (PEG-IFN/RBV/SMV) in the context of early reduction of viral load during treatment. They concluded that early viral response is a predictive factor for the achievement of sustained viral response 12, even in antiviral therapy with PEG-IFN/RBV/SMV. An extended treatment period should be used for patients who show detectable serum HCV-RNA at week 4.

Hasegawa et al. [2] evaluated cytokeratin-18M65 (CK-18M65) for distinguishing between simple steatosis and non-alcoholic steatohepatitis (NASH) against healthy individuals in the Japanese population. They concluded that serum CK-18M65 distinguished NASH from simple steatosis, but could not assess the severity of steatosis in non-alcoholic fatty liver disease patients on the grade of fibrosis in NASH patients with non-alcoholic steatohepatitis.

Sugimoto et al. [3] compared the characteristics of hypovascular and hypervascular well-differentiated hepatocellular carcinoma (HCC) in terms of tumor size, tumor markers [4–8] and detectability by imaging modalities [9–13]. They found that no difference was observed in tumor size and tumor markers between the 2 types of HCCs; however, the sensitivity of dynamic CT, contrast-enhanced ultrasonography with sonazoid and CT during arterial portography was significantly better in detecting

hypervascular HCCs. However, detectability of hypovascular HCCs was inferior to the above-mentioned modalities, whereas hypovascular HCC could be diagnosed well by the hepatobiliary phase of MRI using gadolinium (Gd) ethoxybenzyl diethylenetriamine pentaacetic acid as a contrast agent [14].

Arizumi et al. [15] examined the efficacy and adverse events in 241 patients treated with sorafenib over a 6-year period at a single institution. They concluded that continuation of treatment with sorafenib for ≥ 90 days without deterioration of liver function was critical for obtaining the survival benefit of the patients if tumor response was determined as stable disease or higher.

Piscaglia et al. [16] evaluated the potential of MRI in the diagnosis of intrahepatic cholangiocellular carcinoma using ‘hepatocyte-specific’ Gd-based contrast agents. They concluded that MRI with hepatocyte-specific Gd-based contrast agents showed a pattern of malignancy in almost all intrahepatic cholangiocellular carcinoma, concurrently avoiding misdiagnosis with HCC.

Nishida et al. [17] studied epigenetic alterations that were responsible for HCC development [18] and identified the risk factors that were associated with DNA methylation in background liver tissue of non-B, non-C (NBNC) HCC patients. They concluded that background methylation was mostly associated with age in NBNC-HCC patients; some age-related methylation events could contribute to the emergence of NBNC-HCC in elderly individuals [19].

Kudo et al. [20] developed the subclassification of BCLC B intermediate stage HCCs by modifying the Blon-di's subclassification. They state that the Kinki criteria subclassified BCLC B stage into 3 substages: B1 (Child-Pugh score 5–7, within up-to-7 criteria), B2 (Child-Pugh score 5–7, beyond up-to-7 criteria) and B3 (Child-Pugh score 8, 9 and any tumor status). They emphasized that the stratification ability of this criteria is more efficient and easier to apply to clinical practice than the original Blon-di's subclassification. Furthermore, the concept of treatment indication ranges from curative intent (B1), palliative treatment (B2) and no treatment (B3) sub-groups, which is relevant to clinical practice of BCLC B patients [21].

Minami et al. [22] described that cone-beam CT angiography is capable of providing more information than the standard 2D angiography in visualizing HCCs and targeting tumors through precise microcatheter placement in close proximity to HCCs. They concluded that cone-beam CT has the potential to significantly impact the practice of interventional radiology.

Kudo et al. [23] described the significance of establishing general rules, a nationwide follow-up survey and clinical practice guidelines for liver cancer in Japan. They em-

phasized that both the evidence-based and consensus-based treatment algorithms for HCC are used to complement each other in clinical practice in Japan [24].

Nishida et al. [25] reported the molecular mechanism and prediction of sorafenib chemoresistance in human HCC. To date, a number of studies have examined the underlying mechanisms involved in the response to sorafenib and trials have been performed to overcome the acquisition of drug resistance. They stated that the activation of an escape pathway from RAF/MEK/ERK possibly results in chemoresistance. In addition, there are several features of HCCs indicating sorafenib resistance, such as epithelial mesenchymal transition and positive stem cell markers.

Kudo et al. [26] overviewed the challenges of clinical practice and research on HCC regarding tumor markers, imaging, pathological diagnosis, treatment strategy, staging system and subclassification. They also described the difference in the practice pattern between Japan and Western countries.

Finally, I strongly believe that this special issue 'Chronic Liver Diseases and Liver Cancer: An Update in 2015' will be beneficial and invaluable for all readers who specialize in liver diseases and HCC.

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