

A Multidisciplinary Team Approach to the Management of Patients with Hepatocellular Carcinoma with Portal Vein Tumor Thrombus

The advanced techniques and technologies have improved prognosis of patients with hepatocellular carcinoma (HCC) in recent years, including improved surgical techniques and advances in radiotherapy/interventional treatment/local therapies/systemic drugs [1, 2]. However, appropriate implementation of therapies is crucial to the success in treating patients with HCC and portal vein tumor thrombus (PVTT), of which there is still no universally accepted consensus available for reference. As PVTT progresses rapidly, these patients have an extremely dismal prognosis with survival as low as 2.7 months if left untreated [3].

A multidisciplinary team (MDT) approach has been reported to optimize patient selection and improve long-term survival in many cancers. Treatment for patients with HCC and PVTT is extremely complex and should simultaneously address the triple challenges posed by the tumor, the PVTT, which can block the portal venous blood flow into the liver, and liver functional status. However, those patients are often treated by a single specialist, or successively by single specialists at various stages of the treatment, which can lead to delayed or even inappropriate treatments. Therefore, an MDT procedure is necessary to provide effective therapies for those patients.

We established a multidisciplinary diagnosis and treatment center for HCC with PVTT in April 2013 and have since carried out a weekly MDT meeting. The MDT meetings are regularly attended by specialists from the departments of hepatic surgery, diagnostic radiology, pathology, radiotherapy, interventional radiology, and hepatology. In the MDT meetings, decisions are made on the diagnosis, staging, and treatments, which include surgery/radiotherapy/transarterial chemoembolization/sorafenib/FOLFOX-4 chemotherapy/supportive therapies, either alone or in combination. The selection of the treatment protocol is mainly based on the Chinese expert consensus on multidisciplinary diagnosis and treatment of HCC with PVTT [4]. After the MDT meetings, the patients were interviewed by the clinicians in charge. The pros and cons of the treatment protocols were discussed with the patients who would finally decide on the treatment option.

There have been several improvements in the patient management process since the inauguration of the MDT. Especially, improved cooperation and communication between

different specialists have led to the increasing use of combined and sequential therapies from different subdisciplines in the MDT group, instead of the monotherapy with salvage treatments offered by a single discipline in the pre-MDT era. Also, the MDT approach facilitates multidisciplinary review of imaging such as computed tomography and magnetic resonance imaging, which leads to a significantly increased number of patients who underwent surgical treatment after implementation of the MDT approach. Other improvements using the multidisciplinary approach included the more accurate evaluation of tumor and PVTT, development of appropriate and individualized treatment protocols, and avoidance of unnecessary or repetitive investigations and interventions.

Although the significance and benefit of the MDT approach in HCC with PVTT still need further confirmation by analysis of treatment and survival data, an MDT approach may be the easiest way to come up with an appropriate treatment by the specialists in the various clinical disciplines. With rapid development of various disciplines in HCC in recent years, the MDT approach can contribute even more to better patient management.

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Disclosures

The authors indicated no financial relationships.

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<http://dx.doi.org/10.1634/theoncologist.2019-0196>