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Hepatocellular carcinoma (HCC) is an aggressive tumour that frequently occurs in the setting of cirrhosis. Disease extent and the patient's hepatic reserve dictate the therapeutic options.  The core MD team includes hepatologists, transplant and hepatobiliary surgeons, radiologists, interventional radiologists, radiation oncologists, medical oncologists, nurses, and social workers.  Together, they ensure that all patients receive timely, continuous, integrated and improved quality of cancer care.  MDT approach has a patient-centred approach and improves coordination of care and outcomes including quality of life and survival.  CONTENTS  HEPATOCELLULAR CARCINOMA   * An overview of HCC is presented. Epidemiology, aetiopathology, clinical presentation, diagnosis and staging are discussed. * Various treatment modalities including liver transplantation, partial hepatectomy, percutaneous ethanol injection (PEI), transarterial chemoembolization (TACE), transarterial radioembolization (TARE) with Yttrium-90 (90Y), radiofrequency ablation, cryosurgery), external beam radiotherapy (RT), systemic therapy, role of novel drugs such as sorafenib are outlined * AASLD/ESMO/NCCN/BSG treatment guidelines for management of HCC are presented * Algorithm for treatment is included   ROLE OF THE MULTIDISCIPLINARY TEAM IN MANAGEMENT OF HCC   * A multidisciplinary team of physicians is essential for the successful treatment of HCC. The benefits of multidisciplinary disease management of patients include reducing recurrent disease, optimizing timing of surgery, prolonging survival for the patient and enhancing response to therapies.   HCC – A candidate for the MDT approach   * As there are a variety oftherapeutic options available for patients with HCC, a multidisciplinary team is essential for management * Multidisciplinary teams are involved in the diagnosis and staging of HCC, treatment plans and delivery and they ensure that patient is involved in the decision making process.   The Core MDT in HCC, individual roles and communication  The core MDT in HCC includes hepatologists, transplant / hepatobiliary surgeons, radiologists, interventional radiologists, radiation oncologists medical oncologists, nurses, and social workers.   * The hepatologist is involved in the surveillance and early diagnosis of HCC. A majority of patients with HCC have underlying liver disease, which may be related to infection with hepatitis B virus (HBV) and/or hepatitis C virus (HCV). Furthermore, patients who undergo treatment are at high risk for recurrent disease and of progression to liver failure. Patients with more advanced liver disease need proper monitoring and assessment of their underlying liver disease, which may have a major impact on longer term survival. The hepatologist provides comprehensive care of patients with cirrhosis with antiviral therapy for HBV and HCV, immunization against hepatitis A and HBV, and endoscopic screening and surveillance for varices * The hepatobiliary surgeon is an important MDT member. His role is to consider information gathered from the other MDT members when determining whether a HCC is suitable for resection /liver transplantation and when formulating a surgical plan. * The radiologist is involved in the surveillance, diagnosis of HCC by CT / MRI, and follow-up monitoring of patients with HCC   + Interventional radiologist provides expertise in procedures such as embolization, chemoembolization and ablative treatments in patients with HCC   + The radiation oncologist administers external beam radiotherapy   + Medical oncologist contributes to the treatment with chemotherapy and use of novel agents such as sorafenib * Oncology nurses are involved in the long-term care of patients with HCC * Consultations between the hepatoologist, hepatobiliary/transplant surgeon, radiologist, interventional radiologist and medical oncologist, are essential to ensure optimal care of patients with HCC * Treatment options for patients with HCC include surgery, embolization (+/- chemotherapy) and medical treatment (sorafenib). * The only proven potentially curative therapy for HCC remains surgical, either hepatic resection or liver transplantation, and patients with single small HCC (<5 cm) or up to three lesions <3 cm are referred for assessment for these treatment modalities * Liver transplantation is considered in any patient with cirrhosis and a small (5 cm or less single nodule or up to three lesions of 3 cm or less) HCC * Hepatic resection is considered as primary therapy in any patient with HCC and a non-cirrhotic liver * Resection can be carried out in highly selected patients with hepatic cirrhosis and well preserved hepatic function (Child-Pugh A) who are unsuitable for liver transplantation. * Percutaneous ethanol injection (PEI) is best suited to peripheral lesions, less than 3 cm in diameter. Radiofrequency ablation is a good alternative ablative therapy * Chemoembolisation has been shown to affect survival in highly selected patients with good liver reserve. Chemoembolisation using lipiodol is effective therapy for pain or bleeding from HCC * Systemic chemotherapy with standard agents has a poor response rate and should only be offered in the context of trials of novel agents * [Sorafenib](http://www.uptodate.com/contents/sorafenib-drug-information?source=see_link) is a multi-targeted orally active small molecule tyrosine kinase inhibitor (TKI) which has been shown to offer a better survival benefit compared to supportive care alone * The MDT team has regular meetings where specialists present patient cases for discussion of all available treatment options as well as clarification of diagnosis and management pathways * An individualized management plan is devised for each patient based on the symptoms, stage of disease, based on inputs from the different specialists * Multidisciplinary teams ensure an integrated care and improved quality of cancer care. It has a patient-centred approach * The process of reviewing patient management issues through multidisciplinary meetings benefits both patients and team members * Delivery of multidisciplinary cancer care is usually by one stop multidisciplinary clinics where patients can see all relevant specialists in one visit   Patient communication   * Communication between multidisciplinary team and patients is most important. In cancer management, communication skills are a key to achieving the important goals   Benefits of the MDT approach in HCC   * MDT approach in HCC ensures that Patients receive timely treatment and care from appropriately skilled professionals resulting in improved outcomes including quality of life and survival | | | | |