



HBV Reactivation in Patients receiving Cytotoxic Chemotherapy

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After graduating in Medicine at The University of Hong Kong in 1994, Chee-Kin Hui worked as a clinician for 8 years and obtained an MD at The University of Hong Kong in 2003, followed by two years at University of California, San Francisco and The University of Cambridge. He returned to Hong Kong in 2004. He has been working as an Assistant Professor in the Department of Medicine since.

His main research contributions have been in the understanding of the role of occult HBV infection and innate immunity in chronic HBV infection.

In hepatitis B virus (HBV) endemic areas, the increased use of cytotoxic or immunosuppressive therapy has resulted in an increased incidence of liver-related morbidity and mortality due to HBV reactivation in chronic HBV infected patients. As the hepatitis is preceded by HBV virological reactivation, administration of effective anti-viral therapy to HBV (anti-HBV) such as lamivudine pre-emptively before or at the initiation of cytotoxic therapy and covering the entire duration of immunosuppression, has greatly reduced the risk of liver-related morbidity and mortality due to HBV reactivation. However, such early “pre-emptive” approach runs the risk of over-treating patients who might not be suffering from HBV reactivation with nucleoside analogue. In addition, the duration of therapy with pre-emptive nucleoside analogue, such as lamivudine, would be longer. Such indiscriminant pre-emptive approach could result in an increased risk of developing HBV viral resistance. Indeed, severe liver damages due to the development of mutations in the polymerase gene related to lamivudine, namely at M204V and at L180M, has been reported in hepatitis B surface antigen (HBsAg) positive recipients of allogeneic bone marrow transplantation who were treated with pre-emptive lamivudine. In order to further optimize the management of post-chemotherapy HBV reactivation, more studies aiming to identify risk factors for HBV reactivation after chemotherapy should be undertaken.