器官移植後的 B 型肝炎病毒再活化

HBV reactivation and organ transplantation

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Hepatitis B virus (HBV) infection is associated with liver-related complications that can lead to end stage liver disease (ESLD) and liver failure. Liver transplantation (LT) offers the ultimate cure for patients with chronic hepatitis B (CHB) and is the only treatment available for patients with ESLD. However, post-LT HBV recurrence can lead to rapid liver disease progression, graft failure, and death. By the year 1990s, HBV was considered as a contraindication for LT due to poor outcome, with a survival of only ~50% at 5 years. The landmark study by Samuel et al. in 1991 showed that passive immunization with Hepatitis B immunoglobulin (HBIG) reduced the HBV recurrence rate to around 30–40%. Since the approval and use of the first nucleos(t)ide analogue (Nuc) lamivudine (LAM), combination of HBIG plus LAM has further reduced HBV recurrence and improved survival of HBV-related LT, and become the standard of care for prophylaxis against HBV recurrence after LT. However, HBIG is expensive, inconvenient, and there is no clear consensus on the optimal dose and schedule for the HBIG regimen. The advent of more potent Nucs with high genetic barrier to resistance, i.e. entecavir (ETV) and tenofovir (TDF), has further reduced long-term recurrence rates. Recent strategy has suggested the use of HBIG for only a period of time after LT, followed by long-term Nucs alone. Till now, the consensus has not been documented. Is there an end of HBIG era?

HBV infection after non-liver organ transplantation is also a problem and was studied more in the setting of renal transplantation (RT). HBV infection is an established cause of morbidity and mortality in RT recipients (RTRs). Immunosuppression post-RT may affect the host's immune responses against HBV. Rates of HBV DNA reactivation of 50% to 94% have been reported in the absence of prophylactic antiviral therapy, thereby leading to fatal liver complications.. Due to poor patient and graft survivals, RT has been not preferred to hemodialysis for HBsAg-positive patients with end-stage renal failure. However, there is a lack of alternative therapy (like hemodialysis for end stage renal disease (ESRD) in patients with other organ failure. With the availability of Nucs since 1998, HBV infection is no longer a risk factor for death or graft failure in organ transplant recipient.