

Implication of levels of systemic cytokines in varied clinical sequelae of hepatitis B

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Infection with hepatitis B virus (HBV) is associated with impairment of cellular immunity. Both Th1 and Th2 T-cells mediate humoral & cellular immunity to neutralize HBV by antibodies and inhibit HBV replication through cytokines. A total of 39 patients, 18 with chronic active hepatitis B (CAH) and sustained viral loads of $\geq 10^3$ IU/mL, 7 (CHB) chronic patients with no viremia for the past 3 months, 6 naive patients with dual HBV/HCV infection & 8 healthy controls were included in the study. All cases were screened using a novel semi-automated nested multiplex real-time PCR assay, which uses four kinds of fluorophores for the concurrent detection of amplicons from HAV, HBV, HCV and the whole process control (WPC) based on a unique Dual Priming Oligonucleotide (DPO™) technology developed by Seegene, Korea. The viral loads were detected using artus Qiagen kits as per manufacturer's instructions with a minimum detection limit of 6.0 IU/mL. Serum cytokines IFN- γ and IL-10 were evaluated by solid phase enzyme amplified sensitivity immunoassay (DIA Source) & Neopterin estimated using competitive ELISA (Genway). The values of IFN- γ , Neopterin and IL-10 were raised by 2-3 fold in CAH and CHB patients, as compared to naive patients and healthy controls. Monitoring the production of IFN- γ (Th1 type immune response) and IL-10 (Th2 type immune response) in peripheral blood along with neopterin levels can be used in routine clinical practice as rapid and cost-effective markers to provide information on activation status of cellular immune response in different clinical presentations of patients with HBV infection, plausible correlation with degree of viremia and response to the drug regimen during follow-up.

Biography

Maudar K. K., M.S. (Gen & Pediatric surgery), FRCS (Edin & Glasgow), FACS, Ph.D. Director and Professor of Surgical Gastro enterology has published over 100 scientific papers in national and international journals. He has special interest in Hepato biliary, GI and paediatric surgery & visiting Professor to Memorial Sloan Kettering Cancer Centre, Vanderbilt Medical Centre Nashville, Detroit Medical Centre, Paediatric Surgery Centre Ann Arbor Michigan and other Medical Centres in USA & UK. He is a senior member of European Society of Surgical Research, European Society of Surgical Oncology & Society for Surgery of Alimentary tract (USA).

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