·论　著·

乙型肝炎患者前S1抗原与HBV-DNA和HBeAg的相关性研究

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【摘要】　目的　探讨乙型肝炎患者前S1抗原(Pre-S1-Ag)与HBV-DNA、HBeAg的相互关系,并评价Pre-Sl-Ag在反映乙型肝炎病毒复制方面的临床应用价值。方法　收集2014年1月至2015年1月经我院确诊为乙型肝炎患者的血清标本248例,采用电化学发光法检测血清学标志物(HBsAg、抗-HBs、HBeAg、抗-HBe和抗-HBc)、酶联免疫吸附试验(ELISA)检测Pre-S1-Ag、实时荧光定量聚合酶链反应(RT- PCR)检测HBV-DNA载量。同时对50例健康对照者也进行相同的检测。结果　248例乙型肝炎患者HBV-DNA、Pre-S1-Ag、HBeAg的阳性率分别为62.5%(155/248)、56.0% (139/248)、36.3% (90/248);Pre-S1-Ag与HBV-DNA存在相关性($P<0.01$,$r=0.586$),Pre-S1-Ag与HBeAg也存在相关性($P<0.01$,$r=0.459$),且Pre-S1-Ag与HBV-DNA的相关性更密切;以乙肝病毒HBV-DNA≥10^3copies/ml为判断乙肝病毒存在复制的标准,Pre-S1-Ag的灵敏度、特异度、阳性预测值、阴性预测值、阳性似然比、阴性似然比和Youden指数分别为:83.9%、90.3%、0.94、0.77、8.7、0.18和0.74。结论　Pre-S1-Ag与HBeAg相比,Pre-S1-Ag和HBV-DNA有较高的阳性符合率,能更准确地反映HBV的复制情况。

【关键词】　乙型肝炎;前S1抗原;HBV-DNA;相关性
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Correlation between pre-S1 antigen and HBV-DNA, HBeAg in hepatitis B patients. *XIONG Ge, QIAO Bin, LI Yan. Department of Clinical Laboratory, Renmin Hospital of Wuhan University, Wuhan 430060, Hubei, CHINA*

【Abstract】　**Objective**　To study the correlation between pre-S1 antigen (Pre-S1-Ag) and HBV-DNA, HBeAg in hepatitis B patients, and to evaluate the clinical value of Pre-Sl-Ag in reflecting the replication of hepatitis B virus. **Methods**　Serum samples were collected from 248 patients with hepatitis B infection in our hospital from Jan. 2014 to Jan. 2015. The serological markers (HBsAg, anti-HBs, HBeAg, anti-HBe and anti-HBc) were detected by the electrochemiluminescence immunoassay method, and Pre-S1-Ag was detected by enzyme-linked immunosorbent assay (ELISA). HBV-DNA copies were detected by real-time fluorescence quantitative polymerase chain reaction (RT-PCR). Meanwhile, 50 healthy control subjects were also detected. **Results**　The positive rates of Pre-S1-Ag, HBV-DNA, HBeAg were 62.5% (155/248), 56.0% (139/248) and 36.3% (90/248), respectively. Significant correlation was found between Pre-S1-Ag and HBV-DNA ($P<0.01$, $r=0.586$), Pre-S1-Ag and HBeAg ($P<0.01$, $r=0.459$), as well as between Pre-S1-Ag and HBV-DNA. Taking HBV-DNA≥10^3 copies/mL as the judgment of HBV replication, the sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), positive likelihood ratio (PLR), negative likelihood ratio (NLR) and Youden index of Pre-S1-Ag were 83.9%, 90.3%, 0.94, 0.77, 8.7, 0.18 and 0.74, respectively. **Conclusion**　Compared with Pre-S1-Ag and HBeAg, Pre-S1-Ag and HBV have a higher positive coincident rate, and can more accurately reflect the replication of HBV.

【Key words】　Hepatitis B; Pre-S1 antigen; HBV-DNA; Correlation

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