

论著

# 乙型肝炎患者及其子女HBV DNA U5样序列单核苷酸多态性分析

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**摘要** 目的 进一步探讨乙型肝炎在患者及其亲子代之间的垂直传播。方法 应用单核苷酸多态性 (SNP)、聚合酶链反应-单链构象多态性 (PCR-SSCP) 分析等分子遗传学技术和方法检测了乙型肝炎患者家系30个, 68例受试者。结果 U5样序列PCR检测结果表明,游离型和整合型HBV DNA在乙型肝炎患者 (HBP) 与其发病后出生子女 (HBPa) 实验组检出率之间呈一致性增高, 其检出率分别与乙型肝炎患者发病前出生子女 (HBPb) 和正常对照组的比较,差异均显著, $p < 0.05$ 。乙型肝炎患者父子之间的SNP分析发现, 在U5样序列区和非U5样序列区多个碱基位点处出现碱基替换、插入或缺失, 1908A→T、1950 G→T、1967 T→C, 还存在1900T缺失和1903C插入等。乙型肝炎患者父子之间的SNP在1908、1950、1967、1900和1903位点一致。结论 乙型肝炎可以在HBsAg阳性的男乙型肝炎患者 (MHBP) 及其子女之间遗传传递,为乙型肝炎的遗传传递进一步提供了分子遗传学证据。

**关键词** [肝炎,乙型](#) [单核苷酸多态性](#) [遗传学](#)

分类号

## An analysis of single nucleotide polymorphism on HBV DNA U5 sequence of hepatitis B patients and their children

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**Abstract** Objective To study further vertical transmission of hepatitis B between the hepatitis B patients and their children. Methods 30 families(68cases) of hepatitis B patients and their children were examined by the molecular genetic methods and techniques of single nucleotide polymorphism(SNP) and polymerase chain reaction - single strand configuration polymorphism(PCR-SSCP). Results It showed that the frequency of freed and integrated HBV DNA were higher consistently between the hepatitis B patients and their children born after the occurrence of hepatitis B, and they had significantly difference than the children born before their parent suffered from hepatitis B,  $p < 0.05$ . SNPs of hepatitis B patients and their children was analysed and discovered that there are base substitution, insertion or deletion in the many base site of HBV DNA U5 sequence and non-U5 sequence, 1908A→T, 1950 G→T, 1967 T→C, and deletion in 1900T, insertion in 1903C and so on. The SNPs in the loci of 1908、1950、1967、1900 and 1903 of male hepatitis B patients and their children born after the occurrence of hepatitis B is identical. Conclusion Hepatitis B may be inherited from the male hepatitis B patients to their children born after the occurrence of hepatitis B; thereby, a molecular genetic evidence was provided further for hereditary transmission of hepatitis B.

**Key words** [Hepatitis B](#) [Single nucleotide polymorphism](#) [Genetics](#)

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