

• 论 著 •

## 化学发光法与 PCR 法联合检测孕妇单纯疱疹病毒感染率分析

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**摘要:**目的 对化学发光法与聚合酶链反应(PCR)联合检测孕妇单纯疱疹病毒(HSV)的感染率进行分析,为临床诊断提供依据。方法 采集该院孕期常规建卡的孕妇血清,用化学发光法检测血清 HSV IgM 与 IgG 抗体水平;对其中任一项结果阳性者取宫颈分泌物进行 HSV DNA 定性检测。结果 HSV1 DNA 阳性率为 0.5%(7/1 422),HSV2 DNA 阳性率为 1.1%(16/1 422)。HSV IgM 和 IgG 同时阳性者 HSV1 DNA 阳性率为 0.4%(4/1 008),HSV2 DNA 阳性率为 0.6%(6/1 008);仅 HSV IgM 阳性者 HSV1 DNA 阳性率为 0.8%(1/130),HSV2 DNA 阳性率为 3.1%(4/130);仅 HSV IgG 阳性者 HSV1 DNA 阳性率为 0.7%(2/284),HSV2 DNA 阳性率为 2.1%(6/284)。3 种情况 HSV 抗体阳性者 HSV1 DNA 阳性率比较差异无统计学意义( $P>0.05$ ),而 HSV2 DNA 阳性率比较差异有统计学意义( $P<0.05$ )。结论 在孕期对 HSV 抗体进行常规检查,对抗体阳性者进行 DNA 检测,能提高诊断准确率。尽量做到早期筛查、早期发现、及早对孕妇进行治疗。

**关键词:**化学发光测定法; 聚合酶链反应; 单纯疱疹病毒属/分离和提纯; 孕妇

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## The detection of herpes simplex virus infection rate by jointly using chemiluminescence assay and PCR

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**Abstract: Objective** Detect the infection rate of herpes simplex virus (HSV) by jointly using chemiluminescence assay and PCR, and provides reference for clinical diagnosis. **Methods** The serum samples were collected from the pregnant women who had routine examination records in the hospital. Chemiluminescence assay was used to detect HSV IgM and IgG in those samples. Cervical secretions were collected from pregnant women with positive results and qualitatively tested for HSV DNA. **Results** The positive rate of HSV1 DNA was 0.5%(7/1 422), the positive rate of HSV2 DNA was 1.1%(16/1 422). For pregnant women whose HSV IgM and IgG were both positive, positive rate of HSV1 DNA was 0.4%(4/1 008) and that of HSV2 DNA was 0.6%(6/1 008); for those who only had HSV IgM positive, the positive rate of HSV1 DNA was 0.8%(1/130), and that of HSV2 DNA was 3.1%(4/130); for those who only had HSV IgG positive, the positive rate of HSV1 DNA was 0.7%(2/284), that of HSV2 DNA was 2.1%(6/284). Among those three HSV antibody positive cases, the difference in HSV1 DNA positive rate was not statistically significant( $P>0.05$ ), while the difference in HSV2 DNA positive rate was statistically significant( $P<0.05$ ). **Conclusion**

The test of HSV antibodies during pregnancy can be used as a routine test, and HSV DNA test can be used as further test for those with HSV antibody positive, which could improve the accuracy of diagnosis. Early screening, detection, and treatment are important for pregnant women with HSV infection.

**Key words:** chemiluminescent measurements; polymerase chain reaction; simplexvirus/isolation & purification; pregnant women

单纯疱疹病毒(HSV)属疱疹病毒科,有包膜双链的 DNA 病毒。HSV 有 2 种血清型,即 HSV1 和 HSV2,其所致感染极为常见,且症状多样。HSV1 潜伏于三叉神经节内的神经元细胞中。其原发或激活感染主要为腰以上部位,由口腔、呼吸道传播。而 HSV2 主要潜伏于脊骶神经节内的神经元细胞内,主要感染生殖器和腰以下部位,传播途径以性传播为主。

HSV 的宿主范围较广,几乎可以感染各种胚胎和新生动物来源的上皮细胞和成纤维细胞。HSV 感染后常潜伏于神经节中,极易复发和传播,近年来其感染趋势在全球迅速增加。隐性患者及无症状者是该病的主要传染源,及时发现并采取预防措施是预防该病传播和及时治疗的关键环节。特别是孕妇 HSV 的早期检测可预防因感染而导致的新生儿死亡或神经系统功能受损<sup>[1]</sup>。孕期 HSV 抗体检测很有必要,作者对 2014 年 1~12 月于本院产科建卡的孕妇进行 HSV 抗体检测结果发现,

HSV IgM 或 IgG 抗体阳性标本 1 422 例,取宫颈分泌物进行 HSV DNA 检测,并进行阳性率分析,旨在了解孕期 HSV 感染情况并为临床诊断提供依据。

## 1 资料与方法

**1.1 一般资料** 对 2014 年 1~12 月于本院产科建卡的孕妇进行 HSV 抗体检测,将检测结果为 HSV IgM 或 IgG 阳性者 1 422 例作为研究对象。其中 HSV IgM 和 IgG 同时阳性者 1 008 例,仅 HSV IgM 阳性者 130 例,仅 HSV IgG 阳性者 284 例。

**1.2 方法** 采用索林(Dia Sorin)LIAISON 仪器,应用化学发光法检测血清 HSV IgM 和 IgG 抗体,其中任一项抗体为阳性者取宫颈分泌物采用罗氏 Light Cycler 仪器检测 HSV DNA。

**1.3 统计学处理** 应用 SPSS20.0 统计软件进行数据分析,计数资料以率或构成比表示,组间比较采用  $\chi^2$  检验。 $P<$

