论著

胃肠癌nm23H1基因遗传不稳定性及其与临床病理特性的关系

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摘要 目的: 研究中国人17号染色体D17S396位点微卫星不稳定性(MSI)和杂合性缺失(LOH),对胃肠癌nm23H1蛋白表达的影响,阐明nm23H1基因遗传不稳定性与胃癌、结肠癌进展的关系,为临床治疗提供实验依据。

方法: 采用石蜡包埋组织抽提DNA、PCR-单链构象多态性(SSCP)、常规银染、Envision免疫组织化学和Leica-Qwin计算机图像分析等方法,对40例石蜡包埋胃癌标本和30例石蜡包埋结肠癌标本及其相应的正常组织,进行D17S396位点MSI、LOH的检测和nm23H1蛋白表达研究。

结果: D17S396位点MSI检出率在胃癌、结肠癌的TNM I+II期高于III+IV期,并且胃癌MSI发生率随着淋巴结转移的发生而降低。LOH检出率在胃癌、结肠癌的TNM III+IV期高于 I+II期,并随淋巴转移的发生而增高。nm23H1蛋白阳性率在胃癌、结肠癌的TNM I+II期显著高于III+IV期,无淋巴结转移组显著高于淋巴结转移组。

结论: MSI和LOH通过相互独立的途径调控胃癌、结肠癌的进展。MSI是胃癌、结肠癌的早期分子标志,LOH多发生于胃癌、结肠癌的晚期阶段并赋予癌细胞高侵袭、预后差的表型。

关键词 胃肿瘤; 结肠肿瘤; 基因, nm23H1

分类号 R363

Relationship between genetic instability of nm23H1 gene and clinical pathological behaviors in gastric cancer and colonic cancer

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Abstract

AIM: To study the relationship between genetic instability of nm23H1 gene and clinical pathological behaviors in Chinese with gastric cancer and colonic cancer, and provide experimental basis for the mechanism of nm23H1 gene and tumor metastasis.
METHODS: This study was conducted on 40 gastric carcinomas and 30 colonic carcinomas. Techniques such as DNA extraction from formalin-fixed paraffin-embedded tissues, PCR-SSCP, ordinary silver stain were used to study microsatellite instability (MSI) and loss of heterozygosity (LOH) of locus D17S396. Envision immunohistochemistry and Leica-Qwin computer imaging techniques were used to assess the expression of nm23H1 protein.
RESULTS: In both gastric cancer and colonic cancer, the frequency of MSI was higher in TNM stage I and II than that in stage III and IV, while LOH was just opposite. Moreover, the frequency of LOH in lymph node metastasis cases was significantly higher than that without lymph node metastasis cases. The positive frequency of nm23H1 protein with lymph node metastasis was lower than that without lymph node metastasis cases. TNM stage III and IV also exhibited lower nm23H1 protein positive frequency compared with stage I and II. < BR>CONCLUSION: MSI and LOH can control the carcinogenesis and metastasis of gastric cancer and colonic cancer through different approaches. MSI may be an early period molecule marker of gastric cancer and colonic cancer. In contrast, LOH appears mostly in the late period of gastric cancer and colon cancer, indicating a high aggressive and poor prognosis.

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Key words Stomach neoplasms Colonic neoplasms Genes nm23H1

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