

肿瘤防治

# 子宫内膜癌中p16甲基化、Her-2表达及血清CA125水平与临床病理特征的关系

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收稿日期 2008-9-27 修回日期 2008-11-11 网络版发布日期:

**摘要** 背景与目的: 研究子宫内膜癌(endometrial carcinoma, EC)组织中抑癌基因p16的甲基化和癌基因Her-2的表达及血清肿瘤标志物CA125水平及其与临床病理特征间的关系。材料与方法: 收集手术切除标本EC组织38例及内膜对照组织20例, 采用甲基化特异性PCR法检测p16的甲基化状态; 用免疫组化法检测Her-2蛋白的表达; 对所有病例术前均采用免疫放射法测定血清CA125水平, 并分析3者与临床病理特征之间的关系。结果: 20例对照组织中p16的甲基化、Her-2表达、血清CA125均阴性(0/20), 而38例EC组织中3者阳性率分别为57.9%(22/38)、60.5%(23/38)、23.7%(9/38), 与对照组比较差异均有统计学意义(P均<0.05)。p16甲基化、Her-2表达的阳性率以及血清CA125阳性率均与EC临床分期有相关关系(P均<0.05), p16甲基化和血清CA125阳性率与病理分化有相关关系(P均<0.05), 血清CA125水平与宫外淋巴结转移有关(P<0.05), 3者与肿瘤浸润深度均显著相关(P均<0.05)。Spearman相关分析结果显示Her-2与CA125之间呈正相关关系(rs=0.323, P=0.048), 与p16甲基化之间呈负相关(rs=0.362, P=0.026)。结论: p16的甲基化、Her-2表达、血清CA125的阳性率反映了肿瘤不同阶段中各基因及肿瘤标志物的不同表现, 联合检测对指导术后治疗具有一定的意义。

关键词 [子宫内膜癌](#); [p16](#); [Her-2](#); [CA125](#); [甲基化](#)

## Relationships between Methylation of p16 Gene, Her-2 Expression and Serum CA125 Level with Clinicopathological Characteristics in Endometrial Carcinoma

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**Abstract** BACKGROUND AND AIM: To study the correlations between p16 gene methylation, Her-2 expression and serum CA125 level in endometrial carcinoma(EC) and clinicopathological characteristics. MATERIALS AND METHODS: A total of 38 EC tissues and 20 normal controls (NC) were analyzed. We studied the p16 gene methylation by methylation specific PCR (MSP) and Her-2 expression by Envision method, and the preoperative serum CA125 levels were checked by radio-immunity in all cases. The correlations of expression levels and EC clinicopathological characteristic were studied. RESULTS: The positive rates of p16 methylation, Her-2 expression and serum CA125 level were 57.9%(22/38), 60.5%(23/38) and 23.7%(9/38), respectively, in 38 cases of EC, but were not detected in 20 normal controls, the difference was significant (P<0.05). Methylation of p16 gene, Her-2 expression and serum CA125 level were all statistically related to clinical stage of EC in test group (P<0.05), methylation of p16 gene and the level was statistically related to histological grade (P<0.05). Serum CA125 levels were statistically related to pelvic lymph node metastasis (P<0.05), the 3 indexes were all statistically related to the depth of tumor invasion (P<0.05). Spearman correlation revealed there was a statistically positive relationship between Her-2 and serum CA125 level (P=0.048) and negative correlation between methylation of p16 gene and Her-2 expression (P=0.026). CONCLUSION: The measurements of p16 methylation, Her-2 expression and serum CA125 level may reflect different behaviors of genes and tumor markers at different stages of tumor

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pathogenesis. They may be useful tools for providing information about the malignant degree, prognosis, and may guide postoperative treatment for patients with EC.

**Keywords** endometrial carcinoma; p16; Her-2; CA125; methylation

DOI

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