

论著

甲硫腺苷磷酸化酶基因和鸟氨酸脱羧酶在卵巢癌中的表达及意义

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收稿日期 2005-11-22 修回日期 2006-2-8 网络版发布日期 2008-8-24 接受日期 2006-2-8

摘要 目的: 研究甲硫腺苷磷酸化酶(MTAP)基因和鸟氨酸脱羧酶(ODC)在卵巢癌中的表达,探讨两者与卵巢癌发病机制的关系。方法:收集60例新鲜的卵巢癌组织。采用逆转录聚合酶链反应测定癌组织中MTAP mRNA的表达,Western印迹法检测甲硫腺苷磷酸化酶蛋白质的表达情况;同时采用高效液相色谱法测定卵巢癌组织中鸟氨酸脱羧酶的活性。20例正常卵巢组织为对照。结果:卵巢癌中MTAP mRNA的表达水平为 0.42 ± 0.11 ,低于正常卵巢的表达水平 0.81 ± 0.18 ,卵巢癌中MTAP mRNA的表达缺失率为15% (9/60)。MTAP蛋白表达结果与mRNA基本一致。MTAP mRNA的表达与卵巢癌病理类型、肿瘤分期、组织分级无明显相关性($P>0.05$)。卵巢癌组织中鸟氨酸脱羧酶ODC的活性为 (3.82 ± 1.03) U,比正常卵巢组织中ODC的活性 (1.38 ± 0.59) U高($P<0.01$)。ODC的活性与卵巢癌组织分级呈正相关。9例MTAP表达阴性的卵巢癌ODC活性为 (4.83 ± 1.27) U,显著高于MTAP表达阳性的卵巢癌患者($P<0.05$)。结论:卵巢癌存在MTAP基因表达减弱或缺失。MTAP基因表达缺失导致ODC的活化可能是卵巢癌的发病机制之一。

关键词 卵巢肿瘤; 甲硫腺苷磷酸化酶; 基因表达; 鸟氨酸脱羧酶

分类号 [R737.31](#)

Expressions of methylthioadenosine phosphorylase gene and ornithine decarboxylase in ovarian cancer

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Abstract

AIM: To investigate the expressions of methylthioadenosine phosphorylase (MTAP) and ornithine decarboxylase (ODC) in human ovarian cancer.
METHODS: 60 fresh samples of ovarian cancer were collected.The expressions of MTAP mRNA and protein were analyzed by using RT-PCR and Western blotting,respectively.ODC activity was measured by high performance liquid chromatography.
RESULTS: The expression levels of MTAP mRNA and protein in ovarian cancer were lower than those of control.In 9 of the 60 samples (15%) there were absence of detectable MTAP mRNA and protein.No significant relevance was found between the expression of MTAP and clinical pathologic features.ODC activity in ovarian cancer was (3.82 ± 1.03) U,which was higher than that of normal ovarian tissues (1.38 ± 0.59) U.ODC activity was related with tumor grade.In MTAP-deficiency ovarian cancer tissues ODC activity was significantly increased when compared with that of MTAP-expressing ovarian cancer samples.
CONCLUSION: Down-regulated MTAP expression and up-regulated ODC activity really exist in ovarian cancer.Activation of ODC resulting from MTAP deletion may be one of the pathogenetic factors of ovarian cancer.

Key words [Ovarian neoplasms](#) [Methylthioadenosine phosphorylase](#) [Gene expression](#) [Ornithine decarboxylase](#)

DOI: 1000-4718

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