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临床医学

MMP-14和TIMP-2在结直肠癌组织中的表达及其临床意义

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摘要：

目的：检测基质金属蛋白酶14(MMP-14)和基质金属蛋白酶抑制因子2(TIMP-2)在结直肠癌组织中的表达情况，探讨MMP-14和TIMP-2在结直肠癌组织中的表达与临床病理指标及二者之间的关系。方法：收集结直肠癌术后石蜡包埋标本60例，正常结直肠组织20例作为对照，采用免疫组织化学SP法检测MMP-14和TIMP-2的表达水平，分析MMP-14和TIMP-2在结直肠癌中的表达与正常结直肠组织的差异及其与临床病理指标和二者之间的关系。结果：MMP-14和TIMP-2在结直肠癌组织中高表达，阳性率分别为86.7%和80.0%，高于正常结直肠组织(P<0.01)。MMP-14的表达与结直肠癌肿瘤的浸润深度、淋巴结转移和Dukes分期密切关联，在浸润浆膜组、有淋巴结转移组和Dukes C＋D期的阳性表达率分别为89.5%、94.1%和94.3%，显著高于未及浆膜组、无淋巴结转移组和Dukes A＋B期的68.2%、73.1%和76.0%（P<0.05）。TIMP-2的表达与结直肠癌肿瘤的浸润深度、淋巴结转移和Dukes分期密切关联，在浸润浆膜组、有淋巴结转移组和Dukes C＋D期的阳性表达率分别为55.3%、64.7%和62.9%，显著低于未及浆膜组、无淋巴结转移组和Dukes A＋B期的81.8%、88.5%和92.0%（P<0.05）。MMP-14和TIMP-2在结直肠癌组织中的表达呈显著负相关（r s＝－1.0，P<0.05)。结论：结直肠癌组织中MMP-14的高表达可能促进了肿瘤的浸润和转移，TIMP-2在结直肠癌的发生发展中可能起抑制作用，二者之间的平衡失调可能是肿瘤侵袭和转移的重要机制之一。

关键词： 基质金属蛋白酶14；基质金属蛋白酶抑制因子2；结直肠肿瘤；侵袭转移

Expressions of MMP-14 and TIMP-2 in human colorectal carcinoma tissues and their clinical significances

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Abstract:

Objective To detect the expressions of MMP-14 and TIMP-2 in colorectal carcinoma tissues, and investigate the relationship between MMP-14, TIMP-2 and clinicopathological features.Methods 60 paraffin-embedded cancer specimens from operated patients with colorectal carcinoma were selected, and 20 normal mucous memb
ranes of colon and rectum were selected as control.The expressions of MMP-14 and TIMP-2 were detected by S-P immunohistochemistry.The relationship between the expressions of MMP-14, TIMP-2 and clinicopathological parameters were analyzed.Results The expression rates of MMP-14 and TIMP-2 were 86.7% and 80.0%, respectively, in colorectal carcinoma tissues and were significantly higher than those in control group (P<0.01).The expression of MMP-14 was closely correlated with the depth of tumor invasion, lymph node metastasis and Dukes stage.The expression rates of MMP-14 in serosa group, lymph node metastasis group and Dukes C+D stage were 89.5%, 94.1%, and 94.3%, respectively, and were significantly higher than those
in non-serosa group, no lymph node metastasis group and Dukes A+B stage (68.2%, 73.1%, and 76.0%)（P<0.05).The expression of TIMP-2 was closely correlated with the depth of tumor invasion, lymph node metastasis and Dukes stage.The expression rates of TIMP-2 in serosa group, lymph node metastasis group and Dukes C+D stage were 55.3%, 64.7%, and 62.9%, respectively, and were significantly lower than
those in non-serosa group, no lymph node metastasis group and Dukes A+B stage (81.8%, 88.5%, and 92.0%)(P<0.05).There was negative correlation between the expressions of MMP-14 and TIMP-2 in colorectal carcinoma tissues(r s＝－1.0, P<0.05). Conclusion The high expression of MMP-14 in colorectal carcinoma tissues may contribute to tumor invasion and metastasis and TIMP-2 may play an inhibitory effect in the development of colorectal carcinoma. The imbanlance of MMP-14 and TIMP- 2 may be one of the mechanisms of tumor invasion and metastasis.

Keywords: matrix metalloproteinases-14 tissue inhibitors of metalloproteinase-2 colorectal neoplasms invasion and metastasis

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