

## VEGF、MVD和LN与大肠癌微转移的关系

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### Relationship of VEGF, MVD and LN with Micrometastasis in Colorectal Carcinoma

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#### 摘要 目的

探讨血管内皮生长因子(VEGF)、微血管密度(MVD)和层黏连蛋白(Laminin, LN)在大肠正常黏膜组织、大肠腺瘤组织及大肠癌组织中的表达及临床意义。方法应用免疫组织化学SP法检测18例正常大肠黏膜组织、26例大肠腺瘤组织和68例大肠癌组织中VEGF和LN的表达水平及MVD计数，并分析他们与大肠癌微转移的关系。结果从大肠正常黏膜逐步发展为大肠癌的过程中，VEGF的表达水平、MVD计数及基底膜明显缺损率均逐渐增加，LN表达减少，大肠癌组织中VEGF的阳性表达率和MVD计数与大肠癌的浸润深度、淋巴结转移、Dukes分期有关( $P<0.05$ )。大肠癌组织中基底膜缺损程度与淋巴结转移、Dukes分期有关( $P<0.05$ )。结论 肿瘤的血管形成和LN的表达与大肠癌的淋巴结转移、Dukes分期等临床病理特征密切相关，联合检测VEGF、MVD和LN的表达对判断大肠癌的浸润和转移倾向，进而估计患者的恶性程度。

关键词： 血管内皮生长因子 微血管密度 层黏连蛋白 大肠癌 微转移

Abstract: Objective

To investigate the expression and their clinical significance of VEGF, MVD and LN in normal colorectal mucosa, colorectal adenomas and colorectal carcinoma. Methods Expression of VEGF and LN in colorectal cancer, colorectal adenomas and colorectal normal tissues were detected by immunohistochemical staining, and the relationships were analyzed with the expression of VEGF, MVD and LN and micrometastasis in colorectal carcinoma. Results In the process that normal colorectal gradually developing into colorectal cancer, expression of VEGF, MVD and basement membrane obvious defect rate gradually increased (LN expression gradually weakened), the positive expression rate and MVD was related with depth of invasion of colorectal cancer, lymph node metastasis, Dukes staging ( $P<0.05$ ), but not with the degree of differentiation, patients' gender, age, tumor location, histological type independent ( $P>0.05$ ). Basement membrane in colorectal carcinoma showed different degrees of defect, or absent, and the degree related with lymph node metastasis, Dukes staging ( $P<0.05$ ), but not with depth of invasion, patients' gender, age, tumor location and histological type ( $P>0.05$ ). Conclusion There are closely relationship between tumor angiogenesis, expression of LN and metastasis of colorectal cancer, Dukes stage. The combined detection of VEGF, MVD and LN can determine the invasion and tendency metastasis of colorectal cancer, then estimate the degree of malignant, and give a guide of therapy.

Key words: VEGF MVD LN Colorectal cancer Micrometastasis

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#### 作者相关文章

- [1] Boyle P, Ferlay J.Cancer incidence and mortality in Europe, 2004[J].Ann Oncol, 2005, 16(3): crossref
- [2] 1-488.
- [3] Rothbarth J, van de Velde CJ.Treatment of liver metastases of colorectal cancer [J] .Ann Oncol 05, 16 (Suppl 2): ii144-ii149.
- [4] Karavasilis V, Malamou-Mitsi V, Briasoulis E, et al.Angiogenesis in cancer of unknown primary: Clinicopathological study of CD34, VEGF and TSP-1[J].BMC Cancer, 2005, 5:25. crossref
- [5] Weidner N, Semple JP, Welch WR, et al.Tumor angiogenesis and metastasis-correlation in invasive
- [6] breast carcinoma [J] .N Engl J Med, 1991, 324(1):1-8.
- [7] Takahashi Y, Kitadai Y, Bucana CD, et al.Expression of vascular endothelial growth factor and
- [8] its receptor, KDR, correlates with vascularity, metastasis and proliferation of human colon cancer [
- [9] Cancer Res, 1995, 55(18) :3964-3968.
- [10] Zhang T, Guo JP.Clinical significance of VEGF expression in human colorectal carcinoma
- [11] Zhongguo Yi Xue Gong Cheng, 2007, 15(7):570-573.
- [12] 张涛, 郭建平.血管内皮生长因子在大肠癌组织中的表达及其临床意义[J].中国医学工程, 2007, 15(7):570-
- [13] 573.]
- [14] Engbring JA, Kleinman KH.The basement membrane matrix in malignancy [J] .J Pathol, 2003, 200
- [15] :465-470.
- [16] Wu XZ, Chen D, Xie GR.Extracellular matrix remodeling in epatocellular carcinoma: Effects of
- [17] soil on seed? [J] .Med Hypotheses, 2006, 66(6):1115-1120.
- [18] Souza LF, Souza VF, Silva LD, et al.Expression of basement membrane laminin in oral squamous
- [19] cell carcinomas [J] .Braz J Otorhinolaryngol,2007, 73(6):768-774.
- [1] 王娟, 纪钧, 蔡忠仁, 陈大可, 黎辰, 陈勇. 金米益肺汤对非小细胞肺癌患者血清VEGF表达的影响[J]. 肿瘤防治研究, 2012, 39(5): 567-569.
- [2] 赵和平, 平梅. 消癌平抗鼠H22肝细胞癌生长和血管生成的实验[J]. 肿瘤防治研究, 2012, 39(5): 497-501.
- [3] 张建良, 谭志军, 郭雪西, 陈玥, 姜伟, 谷川. 脂联素受体的表达与大肠癌分期和分级的关系[J]. 肿瘤防治研究, 2012, 39(4): 428-431.
- [4] 杨素梅;刘可玲;王立敏;高建宏;李华;高玉霞. 血管生成素-2及其受体在卵巢癌组织中的表达及与血管生成的关系[J]. 肿瘤防治研究, 2012, 39(2): 185-188.
- [5] 吕慧芳;刘红亮;陈小兵;陈贝贝;李宁;邓文英;马磊;罗素霞. TIP30基因对大肠癌细胞HCT116生物学特性的影响[J]. 肿瘤防治研究, 2012, 39(1): 13-17.
- [6] 周飞;崔滨滨;刘彦龙;刘建玲;阎广真;杨钰. usp22和ki67在大肠癌组织中的表达及其临床意义[J]. 肿瘤防治研究, 2012, 39(1): 68-70.
- [7] 杨光华;赵晶;李磊;王天阳;张小艳;吕春秀;王凤安. BAG-1在大肠癌中的表达及其临床意义[J]. 肿瘤防治研究, 2012, 39(1): 71-74.
- [8] 彭兴春;余明华;骆志国;崔培林. 褪黑素对肿瘤A549细胞诱导的血管内皮细胞增殖的影响[J]. 肿瘤防治研究, 2011, 38(9): 1002-1005.
- [9] 申兴斌;段惠佳;赵杨;张古林. 垂体肿瘤转化基因在大肠正常黏膜、腺瘤及大肠癌组织中的表达及意义[J]. 肿瘤防治研究, 2011, 38(9): 1042-1045.
- [10] 吴晓慧;王顺祥;杨永江;李建坤. YC-1对人肝细胞癌裸鼠移植瘤的影响及其机制[J]. 肿瘤防治研究, 2011, 38(8): 895-898.
- [11] 陈曦;毛勤生;黄华;朱建伟. PKC- $\zeta$ 在大肠良恶性组织中的表达及其与Cortactin蛋白的关系[J]. 肿瘤防治研究, 2011, 38(8): 903-908.
- [12] 刘培根;马利林;朱建伟. 氧化应激对大肠癌细胞迁移、血管内皮生长因子表达及细胞间通信的影响[J]. 肿瘤防治研究, 2011, 38(8): 857-860.
- [13] 吴民华;陈小毅;梁艳清. STAT5和c-myc在大肠癌中的表达及意义 [J]. 肿瘤防治研究, 2011, 38(7): 806-808.
- [14] 郭宝平;岑洪;谭晓虹;陆永奎. 慢病毒介导的siRNA干扰乳腺癌MCF-7细胞VEGF-C表达的实验[J]. 肿瘤防治研究, 2011, 38(5): 502-504.
- [15] 刘海燕;齐元富;马吉祥;苏军英;徐爱强;李维卡. 培哚普利抗S180肉瘤生长的实验研究[J]. 肿瘤防治研究, 2011, 38(5): 515-518.