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摘要:

摘要 目的: 探讨人食管鳞状细胞癌组织中环氧合酶2 (cyclooxygenase-2, COX-2) 和血管内皮生长因子C (vascular endothelial growth factor-C, VEGF-C) 的表达及其与肿瘤淋巴管生成的关系。方法: 取2002年1月至2007年1月间辽宁医学院附属第一医院病理科66例食管鳞状细胞癌组织标本, 另取10例癌旁组织标本 (食管癌病灶旁2 cm外黏膜) 作为对照。采用免疫组化SP法检测食管鳞状细胞癌组织中COX-2、VEGF-C的表达情况; 采用血管内皮生长因子受体3 (VEGFR-3) 和基底膜标记物IV型胶原免疫组化染色观察肿瘤组织淋巴管生成情况, 测量淋巴管密度 (lymphatic vessel density, LVD), 并分析其与淋巴结转移的关系。结果: 66例食管鳞癌组织中COX-2和VEGF-C表达阳性率分别为69.70%和56.06%, 均显著高于相应的癌旁组织 ($P < 0.05$); 淋巴结转移组织中的COX-2和VEGF-C表达阳性率明显高于无淋巴结转移组织 ($P < 0.01$); COX-2和VEGF-C表达之间存在明显相关性 ($r = 0.479$, $P < 0.05$)。COX-2和VEGF-C蛋白双阳性的食管鳞癌组织中LVD明显高于均呈双阴性表达者 ($P < 0.05$)。结论: 人食管鳞状细胞癌组织中存在COX-2和VEGF-C的高表达, COX-2可能通过上调VEGF-C表达促进食管鳞癌组织中淋巴管生成, 进而促进淋巴结转移的发生。

关键词: [食管鳞状细胞癌](#) [环氧合酶2](#) [血管内皮生长因子C](#) [淋巴管密度](#) [淋巴结转移](#)

Expressions of COX-2 and VEGF-C in esophageal squamous cell carcinoma tissues and their correlation with lymphangiogenesis [Download Fulltext](#)

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Abstract:

Abstract Objective: To investigate the expressions of cyclooxygenase-2(COX-2) and vascular endothelial growth factor-C(VEGF-C) in esophageal squamous cell carcinoma tissues and their correlation with tumor lymphangiogenesis. Methods: Totally 66 esophageal squamous cell carcinoma specimens were obtained from First Affiliated Hospital of Liaoning Medical University during Jan. 2002 to Jan. 2007, and 10 adjacent tissues were used as control. COX-2 and VEGF-C expressions in esophageal squamous cell carcinoma tissues were detected by SP immunohistochemistry. The lymphangiogenesis of tumor tissue and lymphatic vessel density (LVD) were determined by VEGFR-3 and type IV collagen immunohistochemical staining, and their relationship with lymph node metastasis was analyzed. Results: The positive rates of COX-2 and VEGF-C in 66 esophageal squamous cell carcinoma tissues (69.70% and 56.06%, respectively) were significantly higher than those in the adjacent tissues ($P < 0.05$). The expressions of COX-2 and VEGF-C were remarkably higher in lymph node metastasis positive patients than those in metastasis negative patients ($P < 0.01$). Positive correlation was observed between the expression of COX-2 and VEGF-C proteins ($r = 0.479$, $P < 0.05$). Significantly higher LVD was observed in COX-2 and VEGF-C double positive patients than in double negative patients ($P < 0.01$). Conclusion: COX-2 and VEGF-C are highly expressed in esophageal squamous cell carcinoma tissues, and COX-2 might induce tumor lymphangiogenesis and lymph node metastasis by up-regulating VEGF-C expression.

Keywords: [esophageal squamous cell carcinoma](#) [cyclooxygenase-2\(COX-2\)](#) [vascular endothelial growth factor-C\(VEG-C\)](#) [lymphatic vessel density](#) [lymph node metastasis](#)

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