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Gli1蛋白在乳腺癌组织中的表达及其与血管生成的关系

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Expression of Gli1 Protein and Its Relation with Angiogenesis in Breast Carcinoma

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摘要 目的

研究Hedgehog/Gli1信号通路中Gli1蛋白在人乳腺癌组织中的表达，初步探讨Gli1与乳腺癌血管生成的关系。方法 采用免疫组织化学SP法测定79例乳腺癌标本、68例癌旁组织及42例乳腺纤维腺瘤组织中Gli1蛋白的表达；同时用CD34单克隆抗体标记乳腺癌组织中新生血管，计算肿瘤MVD并分析Gli1蛋白的表达与MVD的关系。结果 乳腺癌组织中Gli1阳性率显著高于乳腺纤维腺瘤和癌旁正常组织；Gli1在Ⅲ期乳腺癌中的阳性表达率要高于Ⅰ～Ⅱ期乳腺癌(P<0.05)。Gli1在有腋窝淋巴结转移组中的阳性表达率高于无淋巴结转移组(P<0.05)；相关性分析显示乳腺癌组织中Gli1与MVD表达呈正相关(r=0.325，P<0.05)。结论 Gli1蛋白在乳腺癌中活化，并参与了乳腺癌的发生发展，促进新生血管的生成是其可能的机制之一。

关键词： 乳腺癌 Hedgehog信号通路 Gli1蛋白 血管生成

Abstract： Objective

To study the expression of Gli1 protein,a component of Hedgehog/Gli1 signal pathway,and its relationship with angiogenesis in human breast cancer.MethodsThe expression of Gli1 protein was investigated by immunohistohistochemical method in 79 cases of human breast cancer,68 cases of normal tissues adjacent to cancer and 42 cases of breast fibroadenoma tissues.The microvascular density(MVD) was examined by using immunohistochemical CD34 staining assay.ResultsThe Gli1 expression was higher in breast carcinoma than that in adjacent normal tissues and in breast fibroadenoma(P<0.05).Expression of Gli1 was significant higher in TNM stage Ⅲ than that in TNM stage Ⅰ～Ⅱ(P<0.05) and also was higher with axillary lymphnode metastasis than without lymphnode metastasis(P<0.05).Expressions of Gli1 were positively correlated with MVD(r=0.325，P<0.05).ConclusionGli1 protein is activated and plays an important role in development of breast cancer.Promoting angiogenesis might be one of its mechanisms.

Key words： Breast carcinoma Hedgehog signal pathway Gli1 protein Angiogenesis

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