

论文

HGF及其受体C-Met 和VEGF与星形细胞肿瘤恶性程度及其血管生成之间的关系

刘滨, 刘威, 范海涛, 侯现增, 贾践博, 许尚臣, 庞琦

山东大学附属省立医院神经外科, 济南 250021

摘要:

目的 探索肝细胞生长因子(HGF)及其受体肝细胞因子受体(C-Met)和血管生长因子(VEGF)与星形细胞肿瘤血管生成、病理学分型的关系及HGF、C-Met和VEGF之间的相互关系。方法 应用免疫组织化学(S-P)方法对93例星形细胞瘤组织中的HGF、C-Met、VEGF和微血管密度(MVD)进行检测。应用实时荧光定量聚合酶链反应(FQ-PCR)检测HGF、C-Met和VEGF的mRNA表达。结果 93例星形细胞肿瘤中HGF、C-Met和VEGF的蛋白表达率分别为98.91%、97.82%和100%,且其表达强度与mRNA表达均随星形细胞瘤恶性程度的增高而增强(P均<0.01)。星形细胞瘤的MVD随恶性程度的增高而增高(P均<0.01),HGF、C-Met及VEGF之间的蛋白及mRNA表达存在相关关系(P<0.01)。结论 HGF、C-Met及VEGF的增强表达与星形细胞瘤恶性程度及肿瘤血管生成有密切关系,其表达可作为判断星形细胞瘤患者预后的指标。

关键词: 星形细胞瘤; 肝细胞生长因子; 血管内皮生长因子; 新生血管化; 病理性

Expression of HGF, C-Met, VEGF-A and their correlations with malignancy and angiogenesis in astrocyte tumors

LIU Bin, LIU Wei, FAN Hai-tao, HOU Xian-zeng, JIA Jian-bo, XU Shang-chen, PANG Qi

Department of Neurosurgery, Shandong Provincial Hospital affiliated to Shandong University, Jinan 250021, China

Abstract:

Objective To explore expression of VEGF(vascular endothelial growth factor), HGF(hepatocyte growth factor) and C-Met, the receptor of HGF, in low- and high-grade astrocytoma and their correlations with angiogenesis, pathological differentiation and prognosis. Methods Protein expression of HGF, C-Met and VEGF was examined with the immunohistochemical staining Method (S-P). mRNA expression of HGF, C-Met and VEGF was examined with RT-PCR. Results Expression rates of HGF, CMet and VEGF in 98 astrocyte tumors were 98.81%, 97.82% and 100%, respectively, and the degree of expression was in accordance with malignancy of the tumors. The MVD of astrocyte tumors was positively correlated with the malignancy. Such correlations existed among HGF, C-Met and VEGF. Conclusion Up-regulated expression of HGF, C-Met and VEGF are inseparably and closely related to malignancy and angiogenesis of the tumor, and expression of protein and mRNA can act as an indicator of the prognosis for the patients with astrocyte tumors.

Keywords: Astrocytoma; Hepatocyte growth factor; Vascular endothelial growth factor; Neovascularization; Pathologic

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通讯作者: 庞琦(1961-),男,教授、博士研究生导师,主要从事神经外科肿瘤、外伤及功能性疾病的临床及基础研究。E-mail: pangqi@sdu.edu.cn

作者简介: 刘滨(1985-),男,硕士研究生,主要从事神经外科肿瘤临床及分子生物学研究。

作者Email:

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