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论著

Matrigel对不同Her2表达的乳腺癌细胞原位成瘤、增殖、凋亡和转移的影响

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摘要 目的: 探讨matrigel对Her2阳性和阴性的乳腺癌细胞原位成瘤、增殖和凋亡的影响。方法: 将Her2阳性的人乳腺癌BT 474和Her2阴性的人乳腺癌MDA-MB 231细胞分为单纯原位移植组和matrigel联合移植组,分别接种于裸鼠乳房脂肪垫(mammary fad pat, MFP),每3 d测量肿瘤大小, 第30 d处死裸鼠,肿瘤组织及相关脏器送病理切片和HE染色及免疫组化,并比较matrigel对2种乳腺癌细胞移植后肿瘤形成时间、成瘤率、肿瘤生长、增殖、凋亡和转移的情况。结果: Matrigel应用后2种乳腺癌细胞的成瘤时间较单纯MFP移植明显缩短(P<0.01);Her2阴性的MDA-MB 231细胞的转移率由25.0%上升至37.5%(P<0.05);Her2阳性乳腺癌BT 474细胞的转移率,2种乳腺癌细胞的成瘤率、增殖率和凋亡率无明显差异(P>0.05)。结论: Matrigel应用于Her2阳性和阴性乳腺癌的原位移植可以缩短成瘤时间,提高Her2阴性乳腺癌的转移率,但对2种癌细胞的成瘤率、增殖率和凋亡率无明显影响。

关键词 Matrigel 乳腺肿瘤 基因,Her2 细胞增殖 细胞凋亡

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Effect of conjunction matrigel with MFP implantation on the tumorigenesis, proliferation, apoptosis and metastasis of breast cancer cells with different expression of Her2

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Abstract

<FONT face=Verdana>AIM: To detect the effect of conjunction matrigel with mammary fad pat(MFP)implantation on the tumorigenesis, proliferation, apoptosis and metastasis of Her2 positive and negative breast cancer model. METHODS: The Her2 positive BT 474 and Her2 negative MDA-MB 231 breast cancer cells were injected into MFP of nude mice with or without matrigel to establish breast cancer model. The tumor volume was measured every 3 d. Followed up for 30 d after implantation, the nude mice were killed and the tumors and associated organs were dissected for pathological sectioning and staining with hematoxylin and eosin. The time of tumor formation and the tumorigenesis were determined after implantation. The tumor volume and metastasis rate were calculated and compared with each other. The proliferation and apoptosis of Her2 positive and negative tumors were also determined. RESULTS: Matrigel and MFP implantation technology shortened the time of tumorigenesis significantly(P<0.01). The tumorigenesis rate of BT 474 and MDA-MB 231 breast cancer cells did not show any different(P>0.05). The metastasis rate of MDA-MB 231 breast cancer cells were improved from 25.0% to 37.5%(P<0.05). CONCLUSION: Matrigel and MFP implantation can be combined to shorten the time of tumor formation by two kinds of breast cancer cells, and improve the metastasis of Her2 negative MDA-MB 231 cells. Using matrigel does not show any effect of proliferation and apoptosis on Her2 positive and negative breast cancer cells.</FONT>

Key words Matrigel Breast neoplasms Genes Her2 Cell proliferation Apoptosis

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