SU11274对人子宫内膜癌细胞抑制作用的研究

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Title: The study of SU11274 inhibitory effect on human endometrial carcinoma cells

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摘要: 目的：研究SU11274对子宫内膜癌细胞增殖及凋亡的影响。方法：使用不同浓度SU11274（0.5 μmol/L、1.0 μmol/L、1.5 μmol/L、2.0 μmol/L）作用Ishikawa 和HEC-1B 两种细胞株1小时后，加入40 ng/ml的HGF，继续培养12、24、48小时，随后使用MTT法检测SU11274对子宫内膜癌细胞增殖的影响，并使用Annexin V-FITC法检测SU11274对细胞凋亡的影响。结果：SU11274均能抑制两种细胞的增殖，呈浓度依赖性，对HEC-1B细胞的增殖抑制作用明显高于Ishikawa细胞，差异具有统计学意义（P < 0.05）。SU11274可以使HEC-1B细胞株早期及中晚期凋亡细胞的百分比均增加，且具有剂量依赖效应关系，并不会增加Ishikawa细胞株的凋亡率（P > 0.05）。结论：SU11274是一种十分高效的抑制子宫内膜癌细胞生长的生物活性物质，主要通过诱导细胞的早期及中晚期凋亡来发挥抗肿瘤作用。并且对ER(-)的HEC-1B细胞株具有特异性的抑制作用。

Abstract: Objective:To study the effect of SU11274 on proliferation and apoptosis of two types of endometrial cancer cells.Methods:Two different cell lines(Ishikawa and HEC-1B) were treated with different concentrations of SU11274 (0.5 μmol/L,1.0 μmol/L,1.5 μmol/L,2.0 μmol/L) for 1 hour,and 40 ng/ml of HGF was added to continue.After 12,24,and 48 hours of culture,the effect of SU11274 on the proliferation of endometrial cancer cells was examined using MTT assay,and the effect on apoptosis was detected using Annexin V-FITC.Results:SU11274 could inhibit the proliferation of both cells in a concentration-dependent manner,and the inhibitory effect on the proliferation of HEC-1B cells was significantly higher than that of Ishikawa cells (P < 0.05).SU11274 could increase the percentage of early and late apoptotic cells in HEC-1B cell line,and showed a dose-dependent effect,but it did not increase the apoptosis rate of Ishikawa cell line (P > 0.05).Conclusion:SU11274 is a highly effective bioactive substance that inhibits the growth of endometrial cancer cells.It mainly exerts anti-tumor effects by inducing early and late-stage apoptosis of cells,and specifically inhibits ER-negative HEC-1B cell lines.

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