论著

中药北豆根抗肿瘤活性的体外实验

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摘要 背景与目的:探讨中药北豆根(Rhizoma menispermi)提取物的抗肿瘤作用并分离其活性物质。材料与方法:采用MTT法测定了北豆根提取物对肿瘤细胞增殖反应的影响;用三步法初步分离、纯化了北豆根提取物的抗肿瘤有效部位。结果: 北豆根提取物对多种组织来源的肿瘤细胞增殖有较强的抑制作用,量效关系良好,并且对原代培养肿瘤组织细胞增殖反应有抑制作用,IC50多在9 μg/ml以下,最低可达0.7 μg/ml。并找到了其有效部位。结论:北豆根水提物和北豆根醇提物体外均有很强的抗肿瘤作用;醇提物的作用高于水提物; PE2是北豆根醇提物抗肿瘤的有效部位; PE2不仅对各肿瘤细胞株有广泛的杀伤作用,而且对原代培养肿瘤细胞也有杀伤作用;北豆根作为抗肿瘤药物有待进一步开发。

关键词 北豆根; 抗肿瘤作用

Study about Anti-tumor Effect of Rhizoma Menispermi Extracts in vitro

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Abstract BACKGROUND & AIM: To study the antitumor effect of Rhizoma Menispermi extracts and purify its'active component. MATRAIAL AND METHODS: The effect of Rhizoma Menispermi extracts on the proliferation of 12 kinds of tumor cell lines and 9 cases of tumor cell coming from patients were assayed in vitro using MTT colorimetric method. The antitumor active part of Rhizoma Menispermi extracts was separated and purified using three steps method. RESULTS: Rhizoma Menispermi extracts markedly inhibits the proliferation of 12 kinds of tumor cell lines, and with a dose-dependent relationship(P<0.01). Rhizoma Menispermi extracts also inhibits the proliferation of 9 cases of tumor cell coming from patients by primary culture. The antitumor active part was found. CONCLUSION: Both Rhizoma Menispermi extracts by water (RMW) and Rhizoma Menispermi extracts by ethanol(RME) have very strong antitumor effent in vitro; The effect of RME is stronger than RMW; PE2 is the antitumor active part of RME; PE2 not only has very strong and extensive inhibitive effect on the tumor cell lines but also has inhibitive effect on the tumor cell coming from patients by primary culture. It need the further development as antitumor drug.

Keywords Rhizoma menispermi; anti-tumor effect

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