传感技术学报
中国微米纳米技术学会
全国高校传感技术研究会 主办

纳米三氧化二砷磁性脂质体的热化疗作用对卵巢癌细胞nm23H1及c-myc的影响

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基金项目：国家自然科学基金

摘　要：

目的 研究纳米三氧化二砷磁性脂质体（NMLA）的热化疗作用对卵巢癌HO-8910细胞nm23H1和c-myc mRNA表达的影响。方法 以培养液做对照，分别将空白脂质体、三氧化二砷（As2O3 ）溶液、纳米 As2O3脂质体、纳米磁性脂质体（NML）、NMLA作用于人浆液性卵巢癌HO-8910细胞，并用高频交变磁场(AMF)对经过NML和NMLA处理的HO-8910细胞作进一步热疗处理，RT-PCR方法检测各组细胞nm23H1和c-myc的mRNA表达情况。结果 As2O3使nm23H1mRNA的表达上调，热疗对其无影响;单纯As2O3及热疗均使c-mycmRNA的表达下调，纳米As2O3磁性脂质体的热化疗对其下调作用更为显著。结论： NMLA可在高频AMF作用下对卵巢癌细胞进行热化疗，机制与nm23H1和c-myc的表达相关。

关键词：肿瘤治疗；热化疗；磁性纳米脂质体；三氧化二砷； nm23H1；c-myc；卵巢癌

The effect of the hyperthermochmotherapy of nano-magnetoliposomes containing As2O3 on nm23H1 and c-myc of ovarian cancer cells

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Abstract:

Objective To study the hyperthermochmotherapy of nano-magnetoliposomes containing As2O3 （NMLA）whether to effect the expression of nm23H1 and c-myc in ovarian cancer HO-8910 cells. Methods Five agents, such as liposomes containing nothing, solution of As2O3,liposomes containing As2O3,nano-magnetoliposomes （NML）,NMLA was used to treat HO-8910 cells,and the groups of NML and NMLA was treated in the high frequency alternating magnetic field (AMF). the expression of mRNA of nm23H1 and c-myc were observed by RT-PCR. Results As2O3 could increase expression of mRNA of nm23H1,and hyperthermia had no effect on it. As2O3 or hyperthemia decreased expression of mRNA of c-myc, thermochemotherapy of NMLA decreased expression of c-myc much more. Conclusion In the high frequency AMF NMLA had double functions of chemotherapy and hyperthermia to HO-8910 cells ,which is related with the expression of nm23H1 and c-myc.

Keywords: cancer treatment; hyperthermochmotherapy; nano-magnetoliposomes; As2O3; nm23H1; c-myc； ovary cancer

投稿时间：**2011-10-31**

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