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عنوان مقاله:
a promising approach to treat breast cancer

محل انتشار:
چهاردهمین کنگره بین المللی سرطان پستان (سال: 1397)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:
Introduction & Aim: Tumors hypoxia is increasingly recognized as a major cause of current treatment failure, the more efficient way to treat tumor cells is a specifically target them with minimum toxicity. The results of recent studies demonstrate that anaerobic bacteria able to selectively destroy the hypoxic regions of tumors would increase the effects of other methods. Methods: In this end, we used spores of Clostridium novyi-NT to treat breast cancer model in mice. To doing so, we used genetic engineering to create a strain of Clostridium novyi without lethal toxin, it known as Clostridium novyi-NT (C. novyi-NT). Next, C.novyi-NT was tested intra venous in healthy mice. Then, we generated breast cancer model in female BALB/C mice by injection of 4t1 cell line. Finally, C.novyi-NT were injected intra tumorally and the result were comprised with the result of mice were treated with cyclophosphamide and doxorubicin. Result: The result of this study demonstrate that there were no clinical complications in healthy mice received C. novyi-NT. In tumoral mice the efficiency of antitumor activity of C. novyi-NT vary depending on the tumor size. A single dose of C.novyi-NT was able to cure 100% of mice bearing breast tumors smaller than 500 mm 3 and remained free of tumor relapse. Tumor were not established after reinjection of 4t1 cells subcutaneously. Cyclophosphamide and doxorubicin as routine chemotherapy agents against breast cancer was used as a control. Parallel with the C.novyi-NT , the agents can cured the administrated nice, but leading causes of death after 15 days. Conclusion: Taken together C,novyi-NT can be interesting strategy to combat breast cancer in defined size.

کلمات کلیدی:
C.novyi-NT, breast cancer, hypoxia,

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