

عنوان مقاله:

Investigating the effect of the active plant ingredient allicin on angiogenesis in the chorioallantoic membrane of the fetus

محل انتشار:

پنجمین کنفرانس بین المللی یافته های نوین در علوم پزشکی و بهداشت با رویکرد ارتقای سلامت (سال: 1402)

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خلاصه مقاله:

Introduction: Angiogenesis is one of the most important biological events that is involved in many physiological and pathological processes, including tumor growth, by producing new vessels. Allicin is a natural sulfur compound obtained from the *Allium sativum*. The chick chorioallantoic membrane model has been used in angiogenesis, oncology and dentistry research for more than a century. This research was conducted with the aim of investigating the effect of allicin on the angiogenesis of the chorioallantoic membrane of chick embryos. Materials and methods: In order to investigate the effect of allicin on angiogenesis, this research was carried out experimentally and In-vivo. In the study, the chick embryo chorioallantoic membrane model was used. On the second day of incubation, a window was created in the eggs, and on the eighth day, a gelatin sponge with a diameter of ۴x۴x۱ (containing egg white albumin and agar solution in normal saline) was placed on the chorioallantoic membrane. In the treated samples, ۵ microliters of allicin solution was added to each sponge (with a concentration of ۱ µg.ml), and in the control samples, ۵ microliters of distilled water was added to the gelatin sponge. Then, on the twelfth day of incubation, all control and treated samples were photographed. With the ImagJ program, the length and number of capillary branches in the images were analyzed. Results: The results of the examination of the chorioallantoic membrane of chick embryos showed that the average number of branches and length of vessels in samples treated with allicin, compared to the number of branches and length of vessels in untreated samples, decreased significantly, is ($p < 0.01$). Conclusion: Allicin, the active ingredient, has an inhibitory effect on angiogenesis

کلمات کلیدی:

Garlic, Tumor, Angiogenesis, Allicin, Chorioallantoic

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