

Impact of *Fangxiang Waifu Fang* (芳香外敷方) on growth of Metastatic Tumor of Model Mice with Bone Metastasis of Lung Cancer

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ABSTRACT Objective To observe the effect of Chinese medicine *Fangxiang Waifu Fang* (芳香外敷方) on bone metastasis of lung cancer. **Methods** Established lung cancer with bone metastatic mice models by intra-femur injection human lung adenocarcinoma A549 cells transfected with green fluorescent protein. After successful modeling, mice were randomized into two groups with 10 in each group. Chinese medicine external application group was given *Fangxiang Waifu Fang* 0.5 g/(kg·d) local external application, once every day from 7th day to 21st day after modeling, while the zoledronic acid group was given zoledronic acid injection 30 μg/(kg·d) by intraperitoneal injection on the 7th, 10th, 14th and 19th day after modeling, and the model group (normal saline local external application, 0.5 ml/mouse, once every day), n = 10. The sham operation group was given normal saline local external application, 0.5 ml/mouse, once every day. Body weight was measured in each group on the modeling day, on the 3rd, 7th, 11th, 14th, 17th and 21st day after modeling. Tumor area and metastasis were examined by FluorVivo image-forming system. Tumor weight was measured on the 21st day of modeling. **Results** The difference of mice body weight in each group at different time was not significant ($P > 0.05$). No metastasis of other parts and organs was observed in mice in each group. On the 21st day, mice tumor area was (12.32 ± 6.94) mm² in the Chinese medicine external application group, which was smaller than (23.91 ± 9.86) mm² in the model group and (17.16 ± 7.37) mm² in the zoledronic acid group ($P < 0.05$). Moreover, tumor weight was also less than that in the model group ($P < 0.01$). Compared with the zoledronic acid group and the model group, the difference of tumor area and tumor weight was not significant ($P > 0.05$). **Conclusion** The *Fangxiang Waifu Fang* could inhibit the tumor growth of lung cancer bone metastasis.

Keywords lung cancer; metastatic carcinoma of bone; *Fangxiang Waifu Fang*; fluorescence imaging; metastatic tumor

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中医药学术论文中药名称及名词术语的使用

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(本刊编辑部)