PS-166

The in Vitro and in Vivo Anti-Metastasis Efficacy of In5517 and the Possible Mechanisms of Actions

Wei Chao[1], Guan-Jhong Huang[1]
School of Chinese Pharmaceutical Sciences and Chinese Medicine Resources, China Medical University, Taiwan

Background & Aim :
Metastasis in cancer patients is often fatal cancer caused by one of the reasons. Metastasis of cancer cells involves multiple processes, including cell adhesion,migration and invasion. The aim of this study is to discover the anti-cancer effect of In5517 by in vivo and in vitro experiments.

Materials & Methods :
In5517 is a major component from PhellinusLinteus, one of the traditional Chinese medicines. The MTT assay, gelatin and casein-plasminogen zymography analysis, transwell migration and invasion assay and in vivo metastasis model was used to investigate the anti-metastasis efficacy and detect the related factor in serum, the antioxidant enzymes in tissue.

Results :
The results show that In5517could inhibit cell migration and invasion and enzymatic activity of MMP-9, uPA decrease in Lewis lung carcinoma (LLC) cell. Further animals experiments demonstrated In5517 had anti-metastasis and the related factor in serum including NO, TNF-α are both decreased contents. The antioxidant enzymes in lung tissues such as catalase, SOD and GPx activity was also improved compared with control group.

Conclusion :
The results demonstrated that In5517 could anti-metastasis both in vitro and in vivo and the antioxidant enzymes improved suggested that cancer metastasis might relate with oxidant enzymes.

Keywords:
Metastasis; MMPs; LLC