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Fungal polysaccharopeptide inhibits tumor angiogenesis and tumor growth in mice.

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Abstract

Angiogenesis is crucial to tumor growth and metastasis, and interruption of this process is a prime avenue for therapeutic intervention of tumor proliferation. The present study has made use of the S180 tumor-bearing mouse model to investigate the polysaccharopeptide, PSP, isolated from the edible mushroom Coriolus versicolor, a herbal medicine known for its anti-angiogenesis properties. Quantitative analysis of microcorrosion casting of the tumor tissue showed more angiogenic features such as dense sinusoids and hot spots, in control (untreated) than in PSP-treated animals. Immunostaining of tumor tissues with antibody against the endothelial cell marker (Factor VIII) demonstrated a positive correlation in that both the vascular density and tumor weight were lower in mice treated with PSP. Morphometric analysis of corrosion casts revealed that, even though the total amount of new vessel production was reduced, the basic tumor type-specific vascular architecture was retained. However, the expression of vascular endothelial cell growth factor (VEGF) in these tumors was suppressed. In conclusion, anti-angiogenesis should be one of the pathways through which PSP mediated its anti-tumor activity.
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藥用菇菌類中的蛋白多醣體對控制老鼠的腫瘤血管增生及生長之研究

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血管增生(angiogenesis)
對腫瘤之生長及擴散是必要的過程。癌症治療其中重要一環是要打擊腫瘤的血管增生機制。

是項研究是利用已有 S180類腫瘤的老鼠作實驗對象。由於雲芝
PSP被很多科學研究証實其抗血管增生的功能，是項研究主要著重觀察及比較有服用雲芝 PSP 和沒有服用雲芝 PSP

的實驗老鼠之腫瘤生長情況。重點是要探討及確定雲芝PSP對於抑制腫瘤血管增生的進展及功效。