

**Fungal polysaccharopeptide inhibits tumor angiogenesis and tumor growth in mice.**

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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.