

含靈芝(*Ganoderma tsugae*)多醣體培養液對於口腔灼熱症候群之改善及對 HL60 細胞之影響

Influence of polysaccharide isolated from ganoderma tsugae culture broth on burning mouth syndrome and HL60 cells

中文摘要

靈芝為蕈類植物的一種，他的子實體一直被視為是一種健康食品，自古以來廣受中國人的食用。他被認為具有治療肝病、慢性肝炎、勝臟炎、胃潰瘍、高血壓、關節炎、神經衰弱、失眠、支氣管炎、氣喘及食物中毒等病症。

在本研究中，我們藉由超微過濾膜自松杉靈芝的液態培養液中，萃取出重量百分比約 3% 的水溶性多糖。我們並用萃取出之多糖來加入 HL60 細胞的培養基中，發現他在培養二、四、六天後具有抑制細胞增生的效果。此外，藉由患口腔灼熱症候群之病人口福靈知多糖培養液八週，顯示它可稍微增加抑制 T 細胞(Ts)的數量，平均值 38.09，正常範圍 11 至 38。並且在服用八週的過程中，除依名病患外，並無其他副作用。這種培養液比傳統子實體較為經濟實惠，且有蕈類獨特之香味，易為眾人所接受。因此，以液態培養方式之產品可被當作是一種健康飲料，方便眾人食用。

英文摘要

The fruit body *Ganoderma lucidum* (Ling Zhi), one kind of fungi, has been regarded as a healthy food and taken popularly by Chinese for a long time. It was used to treat hepatopathy, chronic hepatitis, nephritis, gastric ulcer, hypertension, arthritis, neurasthenia, insomnia, bronchitis, asthma and poisoning.

A water-soluble polysaccharide component of *Ganoderma tsugae* broth was extracted about 0.3% (w/w) by ultrafiltration in this study. We cultured HL60 cells with the culture broth of *Ganoderma tsugae*, and found that it has inhibitory effect on proliferation after 2, 4, and 6 days. Orally administered polysaccharides by human of burning mouth syndrome could increase T suppressor cells mildly (average 38.09, normal range from 11 to 38) and has not shown any side effects during 8 weeks except one.

The broth is more economic than traditional fruit body and has unique fungus smell which is quite acceptable for everybody. It might be used as a healthy drink.