

Antioxidant properties of several medicinal mushrooms.

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Three species of medicinal mushrooms are commercially available in Taiwan, namely, *Ganoderma lucidum* (Ling-chih), *Ganoderma tsugae* (Sung-shan-ling-chih), and *Coriolus versicolor* (Yun-chih). Methanolic extracts were prepared from these medicinal mushrooms and their antioxidant properties studied. At 0.6 mg/mL, *G. lucidum*, *G. lucidum* antler, and *G. tsugae* showed an excellent antioxidant activity (2.30-6.41% of lipid peroxidation), whereas *C. versicolor* showed only 58.56%. At 4 mg/mL, reducing powers were in the order *G. tsugae* (2.38) approximately *G. lucidum* antler (2.28) > *G. lucidum* (1.62) > *C. versicolor* (0.79). At 0.64 mg/mL, scavenging effects on the 1,1-diphenyl-2-picrylhydrazyl radical were 67.6-74.4% for *Ganoderma* and 24.6% for *C. versicolor*. The scavenging effect of methanolic extracts from *G. lucidum* and *G. lucidum* antler on hydroxyl radical was the highest (51.2 and 52.6%) at 16 mg/mL, respectively. At 2.4 mg/mL, chelating effects on ferrous ion were in the order *G. lucidum* antler (67.7%) > *G. lucidum* (55.5%) > *G. tsugae* (44.8%) > *C. versicolor* (13.2%). Total phenols were the major naturally occurring antioxidant components found in methanolic extracts from medicinal mushrooms. Overall, *G. lucidum* and *G. tsugae* were higher in antioxidant activity, reducing power, scavenging and chelating abilities, and total phenol content.