

THE EFFECTS OF *GANODERMA LUCIDUM* EXTRACTS ON P388 LEUKEMIC CELLS AND N18 NEUROBLASTOMA CELLS

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The cultured mycelia and fruiting bodies of *Ganoderma lucidum* (GL) have been used in traditional medicine for the treatment of cancer, hypertension, diabetes, hepatitis, chronic bronchitis, allergy and neurodegenerative diseases. In 2000, Cheung, W.M.W. *et al* reported that GL extracts induced the neuronal differentiation of rat pheochromocytoma PC12 cells and prevented nerve growth factor-dependent PC12 neurons from apoptosis. The present study aimed to search for the neuroactive compounds in the GL extracts and to evaluate the effect of GL extracts in P388 mouse leukemic (P388) cells and N18 neuroblastoma (N18) cells. In addition, nitric oxide (NO) production and the activity of various antioxidant enzymes SOD, GSH peroxidase and catalase were measured in P388 cells and N18 cells both in the absence and in the presence of GL extracts. GL extracts exhibited no cytotoxic effect in P388 cells and N18 cells. However they could inhibit the growth of P388 cells. The growth inhibition of P388 cells was not correlated with NO, GSH peroxidase and catalase enzymes. This inhibition may result from the increased SOD activity

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