

Ethanol extracts of fruit bodies of *Pleurotus ferulae* potentiate cytotoxicity of cisplatin in some human cancer cell lines

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Abstract

A mushroom characteristically contains many different bioactive compounds with diverse biological activity. The objective of this study was to screening the materials which have synergistic effects on cytotoxicity with anticancer drugs; cisplatin and tumor necrosis factor-related apoptosis induced ligand(TRAIL) on several human cancer cells contained in *Pleurotus ferulae*.

Ethanol extracts of fruit bodies of *Pleurotus ferulae* was drying with freeze-dryer and used to ethanol extracts of *Pleurotus ferulae*. Three human solid carcinoma cell lines, A549 (human lung carcinoma), HeLa and SiHa(human cervical carcinoma) cell lines were used for evaluating cytotoxicity of extracts. Cytotoxicity of mushroom extracts on cancer cells were determined by MTT assay.

As the result, ethanol extracts of *Pleurotus ferulae* increment the cytotoxicity of cisplatin against all 3 cell lines. The ethanol extracts of *Pleurotus ferulae* also potentiate the cytotoxicity of TRAIL against SiHa and HeLa cell lines.

These results suggested that ethanol extracts of fruit bodies of *Pleurotus ferulae* have some material which potentiate the cytotoxic effects of cisplatin.

Key words : *Pleurotus ferulae*, Cisplatin. Anticancer