

International Conference on

# Neuro Oncology and Rehabilitation

July 21-22, 2016 Brisbane, Australia

## Studying of the antineoplastic effect of the extracts of higher fungi in short-term cellular cultures of glial cells

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The objective of our work was to investigate the influence on the cultures of glial tumors of the extracts of fungi *Cordyceps sinensis* and *Ganoderma lucidum*.

For the analysis of glioma sensitivity to the medicines we used a method of short-term cultivation (72 hours) with the subsequent 0,4% trypan blue staining for assessment both the total of cells in the sample, and determination of the percentage of viable cells in control and experimental samples. Tissue fragments were processed, removing vessels and necrotized parts from them. The obtained suspension of cells was cultivated Dulbecco's Modified Eagle's medium (DMEM) with addition of 10% fetal bovine serum (FBS) ("Sigma", the USA)) in Petri dishes in the CO<sub>2</sub> incubator in standard conditions. The samples containing not less than 70% of viable cells was included in the experiment.

The concentration of medicines was counted taking into account the therapeutic dose and was added to the nutrient medium (experiment). Cell sensitivity to the action of medicines was estimated, comparing the amount of living cells in the experiment concerning control.

As a result of our researches, there was some statistically significant reduction of the percentage of living cells after cultivation with the extracts, concerning control in the culture of cells, obtained from the fragments of gliomas of the III-rd anaplasia degree.

The results of our researches testify about the multidirectional influence of the preparations of fungi extracts under gliomas of various degree of anaplasia in the conditions *in vitro*.

### Biography

Makarenko O.M. has taken PhD degree at the age of 30 at the Moscow Medical Stomatological Institute, M.D. degree at the age of 40 at the Institute of Higher Nervous Activity in Moscow. He carries out his post-dock researches at the Institute of higher nervous activity and Taras Shevchenko National University of Kyiv. He is a professor of the psychology department, the author of more than 200 articles in reputed journals and 5 monographs (Lambert Academic Publishing).

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