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Poster Session

Basidiomycota as a valuable source of biologically active substances

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By now, significant information has accumulated on biologically active compounds of basidiomycota, which have an immunomodulatory effect, activating a link of non-specific antitumor protection and increasing the production of interferon in the blood. An analysis of the cancer prevention has established that some basidiomycota, including *Lentinus edodes* and *Phallus impudicus*, have protective properties that reduce the incidence and risk of malignant neoplasia. Basidiomycota are a promising source of obtaining preventive and curative drugs that have a general strengthening and tonic effect on the body.

In folk medicine, extracts of basidiomycete *Phallus impudicus*, containing a large number of biologically active substances are used. The active substances of *Phallus impudicus* contribute to lowering blood pressure, removing cholesterol; they are used for the treatment of non-healing ulcers, diseases of the gastrointestinal tract, inflammation of the kidneys and liver. Metabolites of *Phallus impudicus* have antitumor and antimicrobial effects. The antitumor effect of the basidiomycete *Phallus impudicus* is due to the production of a polysaccharide-glucomannan and some other biologically active substances that cause the activation of cytotoxic lymphocytes, an increase in the production of perforins, which leads to the destruction of tumor cells.

Phallus impudicus is found in the forests of Ukraine, as a result of which the pharmacological study of its fruit body with the purpose of obtaining an active substance is relevant.

In the work used bibliographic methods of scientific data analysis on the experience of studying and applying of *Phallus impudicus* in folk and official medicine.

As a result of an analysis of more than 50 literature sources, it has been established that extracts from the fruit body of the fungus *Phallus impudicus* have a pronounced antitumor effect, stimulating the functional activity of immunocompetent cells.

An analysis of medicinal plant raw materials of basidiomycetes was carried out; the most optimal from the point of view of the raw material base, the content of active substances and the history of application in folk medicine plant raw material for further research was chosen *Phallus impudicus* (common stinkhorn).

Keywords

Phallus impudicus, basidiomycota, immunomodulating medicines, antitumour