

DETERMINATION OF THE CONCENTRATION OF CANDIDA ALBICANS PROTEIN IN CANDIDOSIS THERAPY

Rybalkin M.V.

National University of Pharmacy, Kharkiv, Ukraine

ribalkin.nikolay@gmail.com

Introduction. Due to the difficult situation with the treatment of candidiasis, many researchers propose to use as an alternative to antifungal vaccine preparations for the prevention and treatment of candidiasis infection

Aim. Purpose of the study: to determine the concentration of the protein of fungi *C. albicans* intramuscularly introduced into the treatment of candidiasis.

Materials and methods. The therapeutic effect of *C. albicans* fungus proteins at concentrations of 1, 2, 3, 4 and 5 mg / ml was studied in white mice. Animals were infected intraperitoneally with a suspension of *C. albicans* fungi strain SSM 335-867 in an amount of 20 million cells with a volume of 1 ml. After 5 days and again after 14 days, mice were injected with 0.2 ml *Candida* mushroom cells intramuscularly into the upper back hind paw. At 14 days after each injection, the protective functions of the animal body were titrated with the titer of specific antibodies of *C. albicans* during immunoassay.

Results and discussion. The results of the studies showed that the antibody titers of healthy animals were in the range 1: 200-1: 500. When intramuscularly administered to diseased animals for candidiasis after the first injection of *C. albicans* mushroom proteins at a concentration of 1, 2, 3, 4 and 5 mg / ml, the titers of *C. albicans* fungi antibodies also increased by two-fold compared with the titers in healthy animals. Following the second intramuscular injection of *C. albicans* fungus proteins at 14-day intervals, the antibody titre was increased 8-fold using protein concentrations of 3, 4, and 5 mg / ml. When using protein concentrations of 1 and 2 mg / ml, the antibody titre of *C. albicans* is increased 4-fold. The antibody titer in the control group did not increase with the intramuscular route of administration. Comparing the results obtained in the experimental and control groups, it is safe to say that intramuscular administration of *C. albicans* fungal cell proteins stimulates the production of antibodies responsible for humoral immunity. Studies have shown the best results in *C. albicans* fungus proteins at concentrations of 3, 4, and 5 mg / ml, which provided 8-fold increase in *C. albicans* antibody titers after the second injection. For further studies, it is promising to use a protein concentration of *C. albicans* 3 mg / ml, since this concentration provides an increase in antibody titers as well as protein concentrations of 4 and 5 mg / ml, and less protein is used. Therefore, using a lower protein concentration of 3 mg / ml is more economically feasible and lower protein concentration reduces side effects that can stimulate high protein concentrations.

Conclusions. According to the data obtained during the studies on the treatment of candidiasis, the intramuscular route of administration after the first injection with the concentration of the protein of fungi *C. albicans* 3 mg / ml antibody titers increased 2 times, and after the second – 8 times. Thus, it can be concluded that these antigens of fungi *C. albicans* activate the protective reactions of the body.

JUSTIFICATION OF THE COMPOSITION OF THE NEW BEER DRINK

Serheiev Ye.O.

Scientific supervisors: assoc. prof. Azarenko Yu.M., assoc. prof. Dvinskykh N.V.

National University of Pharmacy, Kharkiv, Ukraine

outland2006@gmail.com

Introduction. Beer is a low-alcohol beverage that is produced by fermenting the hopped wort with a special breed of yeast. Its taste and aroma are created by extractives that are extracted from malt,