

causing scaling or fissures to develop in the skin). Although the effectiveness of hand sanitizer is variable, it is employed as a simple means of infection control in a wide variety of settings, from day-care centres and schools to hospitals and health care clinics and from supermarkets to cruise ships.

Aim. The theme of this work was the study of the relevance of developing extemporal gel for hand sanitizer.

Materials and methods. The objectives were to assess literature to analyzed and study information about hand sanitizer.

Results and discussion. Depending on the active ingredient used, hand sanitizers can be classified as one of two types: alcohol-based or alcohol-free. Alcohol-based products typically contain between 60 and 95 percent alcohol, usually in the form of ethanol, isopropanol, or n-propanol. At those concentrations, alcohol immediately denatures proteins, effectively neutralizing certain types of microorganisms. Alcohol-free products are generally based on disinfectants, such as benzalkonium chloride, or on antimicrobial agents, such as triclosan. The activity of disinfectants and antimicrobial agents is both immediate and persistent. Many hand sanitizers also contain emollients that soothe the skin, thickening agents, and fragrance.

The effectiveness of hand sanitizer depends on multiple factors, including the manner in which the product is applied (e.g., quantity used, duration of exposure, frequency of use) and whether the specific infectious agents present on the person's hands are susceptible to the active ingredient in the product. In general, alcohol-based hand sanitizers, if rubbed thoroughly over finger and hand surfaces for a period of 30 seconds, followed by complete air-drying, can effectively reduce populations of bacteria, fungi, and some enveloped viruses (e.g., influenza A viruses). Similar effects have been reported for certain alcohol-free formulations, such as surfactant, allantoin hand sanitizer.

Conclusion. Given the literature and analyzing the main components of antiseptic agents, it is important to develop an extemporaneous antiseptic gel.

PHYTO-CHEMICAL RESEARCH OF MUSHROOM TREATMENTS

PHALLUS IMPUDICUS

Hnatiuk O.O., Kukhtenko H.P., Bahlaienko L.F.

Scientific supervisor: prof. Gladukh Ie.V.

National University of Pharmacy, Kharkiv, Ukraine

galinakukh@gmail.com

Introduction: Despite modern scientific advances in the treatment of cancer, folk medicine has not lost its value, and thousands of seriously ill patients are turning to it as the last hope for healing. Humankind has long learned to use the gifts of nature in the form of infusions, using vodka as extractant. To the population of Ukraine, mainly in the countryside, well-known is common stinkhorn (*Phallus impudicus*), which is used solely for medicinal purposes.

In folk medicine use water and alcohol tinctures of fresh or dried mushrooms, as well as raw. It is used both locally and internally for all kinds of diseases: gastritis, gastric and intestinal ulcers, cardiovascular diseases, thrombophlebitis, fibroids, mastopathies, ovarian cysts, prostate adenoma, any malignant tumours, sexual weakness, psoriasis and eczema, gout, during chemo and radiotherapy, to prevent metastases and recurrence of cancer.

The antitumor properties of stinkhorn are associated with polysaccharides found in higher fungi, β -glucans, which activate specific cellular immunity, activating inhibited cytotoxic T lymphocytes, or natural killers that begin to produce perforin proteins, which ruin cancer cells. Also discovered are fungal "phytoncides", which have a detrimental effect on viruses, ranging from rhino viruses to AIDS and others. The champions in the amount of these volatiles are the Japanese shiitake mushroom (*Lentinula edodes*) and our common stinkhorn (*Phallus impudicus*).

Aim of the study: Carrying out phytochemical studies of stinkhorn fungus tinctures. The mushroom was harvested by self in July 2018. In the work used freshly picked and dried raw materials. Drying of the fruiting body of the mushroom was carried out in cool conditions at a temperature of (2-8)°C, as at thermal drying the fungus enters the stage of maturity (intensive growth) in which the mushroom according to the literature is conditionally edible. Since mushroom tinctures are prepared in traditional medicine using vodka, it is interesting to note how ethanol strength affects the extraction of BAS.

Tinctures were prepared in the ratio of raw material: the extractant as 1:40 in terms of dry matter, or 1 : 5 without taking into account the moisture content of the mushroom's fruiting body. As the extractants used different concentrations of ethanol – 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%. Tinctures were obtained by maceration (infusion). In the tinctures determined the content of polysaccharides, extractives, identified the main groups of BAS.

Results. In the identification of the main groups of BAS in the tinctures using colour reactions have been revealed polysaccharides (Felling reagent, red precipitate), phenolic compounds (iron (III) chloride, brown colour), steroid substances (sulfuric acid, concentrated, pink colour), aminoacids (with ninhydrine, blue-violet colour), nitrogen-containing compounds (alkaloids) (Dragendorff reagent, orange-red colour) and iridoids (Stall reagent, cyan colour).

In determining the number of extractives, it has been found that the maximum extraction ensures the use of ethanol at concentrations of 10%, 20% and 30%. In the case of dry stinkhorn fungus, the number of extractives extracted at ethanol concentrations of 10, 20 and 30% is 2-3 times greater than when using freshly picked mushroom.

When determining the quantitative content of polysaccharides by gravimetric method in raw materials, their content was found to be 12.28%. Comparing this value with polysaccharides of shiitake, maytake, reishi, cordyceps and coriolus fungi, stinkhorn fungus is only inferior to shiitake. When determining the number of polysaccharides in tinctures, it has been found that the maximum content of these substances is 4.0-4.5% at extraction with aqueous-alcoholic solution of 20%, 30% and 40%.

Conclusions. The study of the chemical composition of the common stinkhorn fungus (*Phallus impudicus*), the development of substance production technology and the establishment of pharmacological activity is a promising area in the search for new drugs.

RELEVANCE OF THE DEVELOPMENT OF A VETERINARY DRUG ANTIHISTAMINE ACTION FOR TREATMENT OF CANINE ATOPIC DERMATITIS

Horinchoi Y.K.

Scientific supervisors: prof. Yarnykh T.G., as. prof. Pul-Luzan V.V.

National University of Pharmacy, Kharkiv, Ukraine

pulluzanv@gmail.com

Introduction. Atopy is a state of hereditary predisposition to the formation of antibodies (IgE) to environmental allergens. In dogs, atopic dermatitis often occurs between the ages of 1 year and 3x, with 3-15 percent of the population of animals of this species being affected, regardless of gender. Starting treatment of an animal with atopy (dermatitis), you need to remember about the threshold of itching and the summation of irritation. Summing factors are an allergy to flea bites, secondary pyoderma, helminth infections, food allergies. In this regard, it is necessary to influence these summarizing factors. Treatment of atopic dermatitis is one of the most difficult tasks of veterinary dermatology, because this disease is practically impossible to cure. In this situation, it is more appropriate to talk more about state control.

Aim. Show the need for the development of new antihistamines for the treatment of atopic dermatitis.

Materials and methods. In our work we use materials from articles from scientific journals, non-regular publications, as well as educational literature were used.