



Науково-практична конференція з міжнародною участю

## ВІДКРИВАЄМО НОВЕ СТОРІЧЧЯ:

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присвячена 100-річчю Національного фармацевтичного університету

#### МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я НАЦІОНАЛЬНИЙ ФАРМАЦЕВТИЧНИЙ УНІВЕРСИТЕТ

#### «ВІДКРИВАЄМО НОВЕ СТОРІЧЧЯ: ЗДОБУТКИ ТА ПЕРСПЕКТИВИ»

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# Секція 2. СУЧАСНІ АСПЕКТИ РОЗРОБКИ ТА ПРОМИСЛОВОГО ВИРОБНИЦТВА ЛІКАРСЬКИХ, КОСМЕТИЧНИХ ЗАСОБІВ І ДОБАВОК ДІЄТИЧНИХ. ГОСПІТАЛЬНА ФАРМАЦІЯ

Section 2.

MODERN ASPECTS OF DEVELOPMENT
AND INDUSTRIAL PRODUCTION
OF MEDICINES, COSMETICS
AND DIETARY SUPPLEMENTS.
HOSPITAL PHARMACY

### SELECTION OF BASIS AND DEVELOPMENT OF OPTIMAL TECHNOLOGY FOR OINTMENT AGAINST WARTS

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Introduction. A wart is a benign skin neoplasm of viral etiology that looks like a nodule or papilla. It is caused by various human papillomaviruses (HPV). The transmission of the pathogen is carried out through contact with the patient or when the virus is transferred from the patient through public items. A risk factor for infection is a violation of the integrity of the skin (wounds, atopic dermatitis, or others). Warts are skin tumors ranging in size from a pinhead (1-2 mm) to 1 cm or more. These are benign growths on the surface of the skin. Ointments, as a dosage form, have recently been very often used in traditional medicine (for treatment, for the prevention and diagnosis of various diseases). In the form of an ointment are used: antiseptics, analgesics, vitamins, antifungal, hormones, raw materials of medicinal plants containing biologically active substances. Scientists have shown that in some cases, local therapy gives a better result than the treatment of oral, general therapy. Topical therapy reduces the risk of side effects. In some cases, local treatment can, for a certain period of time, replace the means of general therapy or reduce their use, this is especially important in the presence of contraindications to drugs of general action or their poor tolerance.

**Purpose of the research.** Study of the compatibility of medicinal substances and components of the ointmentbase against skin warts. Selection of a base for an ointment against warts.

Materials and methods. The developed by us a mild drug for the treatment of skin warts, which contains an alkaline sodium solution.

**Obtained results.** In recent decades, many works have appeared on the study of the effect of excipients on the kinetics of chemical reactions. As a result of the interaction of medicinal and excipients, the rate of chemical reactions changes.

The selection of the optimal ointment base was carried out, providing the maximum therapeutic effect of the ointment: a local effect on the surface of the wart. To select an ointment base, several ointment compositions were prepared using various carriers: emulsion, hydrophilic. Vaseline, emulsifier T2, anhydrous lanolin, purified water were used as components of the emulsion bases. Na-CMC solutions, glycerin, purified water, bentonite were used as components of hydrophilic bases. All ointment bases contained an alkaline sodium solution. Ointments were prepared in accordance with the physicochemical properties of the base components. The technology for obtaining dermatological ointments consisted of the following stages: preparation of the ointment base, the introduction of an alkaline sodium solution, homogenization, structuring with re-homogenization, packing and packaging of the ointment. The prepared ointments were placed in dark glass jars with screw-on plastic lids; the ointments were stored in a cool, dark place.

Since the bases were of two types, hydrophobic and hydrophilic, we studied indicators for assessing the quality of the ointment on various bases.

The initial parameters of the ointment: appearance, homogeneity, pH value, delamination resistance, thermal stability at high and low temperatures, colloidal stability were monitored for 6 months. As shown by the research results demonstrated in Table 1, no significant changes in appearance, homogeneity and pH values were observed.

Table 1.

The results of studying the compatibility of active and auxiliary substances in the ointment

Study of indicators	Ointment bases	Initialindicators	Studied indicators after 7 days of storage	Studied indicators after 6 months of storage
Appearance -	Hydrophilic base	Light yellow, odorless, soft consistency	Light yellow, odorless, soft consistency	Brown, with a peculiar odor, exfoliated
	Hydrophobic base	Light yellow, odorless, soft consistency	Light yellow, odorless, soft consistency	Light yellow, odorless, soft consistency
Homogeneity	Hydrophilic base	Homogeneous	Homogeneous	Delaminated
	Hydrophobic base	Homogeneous	Homogeneous	Homogeneous
PH value	Hydrophilic base	9	9	-
	Hydrophobic base	9	9	9
Delamination resistance	Hydrophilic base	Stable	Stable	Delaminated
	Hydrophobic base	Stable	Stable	Stable
Thermalstability	Hydrophilic base	No delamination	No delamination	Delaminated
	Hydrophobic base	No delamination	No delamination	No delamination
Colloidalstability	Hydrophilic base	No delamination	No delamination	Delaminated
	Hydrophobic base	No delamination	No delamination	No delamination

**Conclusions.** Thus, a preliminary conclusion can be made about the compatibility of the ointment on a hydrophobic basis, the medicinal and auxiliary substances included in the ointment.

Секція 2. Сучасні аспекти розробки та промислового виробництва лікарських, косметичних засобів і добавок дієтичних. Госпітальна фармація

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