

1	2	3	4	5
Purified water	26.0	26.0	27.1	27.5
Glycerol	44.0	43.5	42.2	41.5
Gelatin	8.3	8.8	9.0	9.3
Gel food colorant (green)	0.1	0.1	0.1	0.1
Fruit flavoring (mattresses)	0.1	0.1	0.1	0.1
Total:	100.0	100.0	100.0	100.0

The lozenges were prepared using the following technology: gelatin was poured with the calculated amount of purified water and left to swell for 30-40 minutes. Sorbitol, ascorbic acid and fructose are sequentially ground in the mortar. The resulting powder mixture is dissolved in a minimum amount of purified water and mixed with glycerol. Paracetamol is administered by type of suspension: firstly, it is ground in the dry state and then by Deriagin's rule with part of the mixture of substances with glycerol, and then mixed with the whole mass of the mixture of substances and glycerol. Flavor and colorant are added. Gelatin is melted in a water bath and concentrate is added. The mixture is stirred until homogeneous condition, poured into molds (fig. 1) and placed in a refrigerator for freezing.



Fig. 1. Mold filled with pastilles mass

The obtained samples of pastilles are green, opaque, with a pleasant aroma of mattress. Sample 1 has an unsatisfactory consistency, indicating the insufficient quantity of gel forming agent. Samples 2 and 3 have the proper consistency, do not stick and have no tears. Sample 4 contains particles of gelatin, indicating its excess. Thus, the samples 2 and 3 meet the requirements for the appearance and consistency of the finished pastilles.

In terms of taste, the worst results are in sample 2 (has a bitter taste) and 1 (slightly sweet); samples 3 and 4 have a pleasant sweet taste.

Conclusions. Based on the studies of appearance, the consistency of the finished product and taste characteristics, it was found that only pastilles according to sample 3 meet all the requirements. Therefore, it is rational to use this composition for the further research.

DEVELOPMENT OF EXTEMPORANEOUS SOFT DOSAGE FORM WITH VINYLIN

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Introduction. Recently, lightly crosslinked acrylic polymers (carbopols) have become widely used in the technology of dosage forms mainly in the technology of dermatological ointments. Great interest of carbopols is due to the valuable properties of their gels: high viscosity, significant emulsifying and suspending ability, providing high bioavailability and prolonging effect, the possibility of using in most types of dosage forms, significant bioadhesion, lack of irritating properties, microbiological stability, ease of administration, compatibility with many groups of medicinal substances, etc. Currently, lightly crosslinked polymers are used in the preparation of emulsions, suspensions, ophthalmic medicines, etc. Today, vaseline-containing bases are most often used in this case promote a number of negative properties: a violation of many skin functions (heat, moisture and gas exchange), an allergic and sensitizing effect. In some cases, vaseline-containing base and others hydrophobic ointment bases causes irritation, severe eczema, dermatosis. In addition, ointments with

vaseline are very difficult to remove from the skin. In this regard, the development of technology and analysis of extemporaneous ointments with the replacement of vaseline in them by carbopol gels is an actual issue of the pharmacy, which will significantly improve the quality and bioavailability of ointments, reduce their cost.

Vinylin (Polyvinox) is a unique medical broad-spectrum medicine with pronounced antiseptic, disinfecting properties. It is usually used externally (for wetting napkins and directly applying to the wound surface) for treatment of boils, carbuncles, trophic ulcers, purulent wounds, burns, frostbite and inflammatory skin diseases etc.

Aim. To develop technology of extemporaneous gel with vinylin is the purpose of our scientific work.

Materials and methods. In our work different types of carbopols are used for preparation of a samples with vinylin in concentration from 1 to 5 %. Quality indicators of the obtained samples (pH, rheological properties, colloidal and thermal stability) was carried out.

Results and discussion. The results showed that gel samples with vinylin showed thermal instability. Therefore, we examined the issue of introducing emulsifiers in the composition of gels.

Conclusions. According to results the composition and technology of extemporaneous gel with vinylin was developed.

DEVELOPMENT OF THE COMPOSITION OF EXTEMPORANEOUS OINTMENT ON THE BASIS OF SORBENT FOR WOUNDS TREATMENT

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Introduction. The use of modern drugs for local treatment of wounds at all stages of complex treatment can reduce the time of systemic antimicrobial therapy, avoid the development of side effects, significantly reduce the cost of expensive antibacterial drugs, and avoid the formation of microflora resistance to systemic antibiotics used. The objectives of the treatment of purulent wound are removal of pus, necrotic tissue; reduction of edema and exudation; fight against microorganisms. In the treatment of purulent complications of wounds, first of all, the phase of the wound process should be taken into account.

In recent years there has been increased attention to excipients that play the role of carriers of medicinal substances in a soft dosage forms. Among the requirements for excipients used in the pharmacy practice, not only good tolerance, thickness and stability, but also the addition of the therapeutic effect of medicinal substances occupy an important place. The development of synthetic chemistry and especially the chemistry of polymers in recent decades has contributed to the use of excipients from the polymer class in pharmacy, which cause to improve of technology, quality, stability and efficacy of dosage forms.

Recently, sorbents have become widely used to treat purulent wounds. The main functional characteristic of sorbent coatings is the ability to absorb exudate released from the wound, the amount of which can be significant. Colloidal silicon dioxide can be used to create gels as a base. These gels are distinguished by a high viscosity that has little dependence on temperature, and by a pronounced thixotropic behavior.

Aim. To develop the composition of extemporaneous ointment on the basis of sorbent for wounds treatment is the purpose of our work.

Materials and methods. Ointment samples on the polyethylene oxide base with different concentration of sorbent was prepared. The sorbing activity of ointment samples in relation to microbial cells was studied.

Results and discussion. The results showed that ointment samples showed high sorbition activity in relation to microbial cells. While comparing the results of the obtained samples of ointments with a sorbent and samples of ointments without sorbents indicates the potentiating effect of the proposed combination.