

# STUDY OSMOTIC PROPERTIES OF SOFT DRUGS WITH DRY PINE EXTRACT FOR USE IN GYNECOLOGY

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**Introduction.** Infectious inflammatory diseases of female genital currently occupy first place (55-70%) in the structure of gynecological pathology and is one of the reasons for the disruption of many organs and systems of the female body. The urgency of this problem is due to not only the high frequency of this disease, but severe adverse effect on her sexual and reproductive function of women.

Today the pharmaceutical market of Ukraine a wide range of synthetic drugs for the treatment of this disease, which may make alternative modern herbal. Accordingly, the actual problem is the development of technology and soft drug with anti-inflammatory and antimicrobial activity of dry extract of pine.

**Aim.** The aim of our work was to investigate osmotic activity modeling samples of ointment bases, followed by the establishment of dependence degree of fluid absorption from the type of foundation.

**Materials and methods.** The objects of the study were typical model examples of ointments with dry pine extract on hydrophobic, hydrophilic, emulsion type o/w, emulsion type w/o, emulgel and gel bases. Osmotic activity of ointment bases determined by dialysis through a semipermeable membrane. The study was conducted at  $37 \pm 0,1$  °C.

**Results and discussion.** Osmotic activity is an important specific parameter that characterizes the properties of soft drug for external use. It is believed that detection of an osmotic activity of the drug anti-inflammatory action promotes dehydration in the area of inflammation, which reduces swelling and speeds up the metabolism in tissues. Based on the medical and biological requirements of drugs that are used in gynecology, the drug should have a moderate osmotic activity and prevent local irritating action.

Study depending osmotic activity of the drug with dry pine extract showed its dependence on the nature of the base. During experimental studies found that osmotic activity of hydrophilic bases twice above than hydrophobic, moderate osmotic activity has emulsion type o/w and emulgel bases.

**Conclusions.** Based on experimental studies for further analysis we selected emulsion type o/w and emulgel bases for subsequent development on the base of it a soft dosage form with dry extract of pine for the treatment of gynecological diseases.