RELEVANCE OF DEVELOPMENT OF MEDICINAL REMEDIES FOR THE TREATMNET OF VAGINAL CADIDIASIS.

Levachkova Yu.V., Soumaja M.
National University of Pharmacy, Kharkiv, Ukraine
lejuva15@gmail.com

Introduction. The most common are pelvic inflammatory processes, viral and bacterial sexually transmitted infections. These problems are largely due to the early onset of sexual life, the presence of several sexual partners, neglect to use barrier methods of contraception, uncontrolled use of various antibacterial drugs, self-medication, insufficient effectiveness of the sex education system, etc.

The problem of vaginal candidiasis has acquired particular relevance. Its frequency in recent years has more than doubled, making up from 30% to 70% in the structure of infectious pathology of the lower genitals in different regions of Ukraine.

Purpose of the research. The aim of given thesis is analysis of pharmaceutical market of Ukraine of antimicotic medicines for the treatment of vaginal candidiasis.

Materials and methods. Statistical and marketing methods of research of electronic and paper sources of information. The analysis of the assortment was carried out on the basis of the materials of the State Register of Medicines of Ukraine and the Compendium.

With untimely and improper treatment, the consequences of candidiasis can be very negative. As a rule, in the absence of therapy, the disease flows into a chronic form, in which the fungus will increasingly spread into the tissues, causing dystrophic changes in them. Also, affected tissues lose their vulnerability to pathogens, which leads to infection and purulent lesions. Fungi begin to spread around the body with blood, forming all new lesions. Vaginal candidosis during pregnancy is dangerous, since there is always a possibility of infection of the fetus.

In gynecological practice, the following main types of drugs are used in pharmacotherapy to treat fungal infection: preparations for external use; systemic, which are administered orally or intravenously. In vaginal candidiasis therapy, the greatest efficacy belongs to fluconazole. According to the ATC classification, drugs with fluconazole are represented by two anatomical groups, among which the bulk are drugs for systemic use. Fluconazole-based drugs are currently among the most popular and as we see the most effective antifungal agents for the treatment of this pathology. In addition to efficacy, fluconazole has another advantage over other drugs. Treatment does not require a long period of time. Usually, in the primary episode of acute vaginal candidiasis, fluconazole is taken once inside at a dose of 150 mg.

According to the data of the study of the assortment of antifungals at the pharmaceutical market of Ukraine, among the preparations from the subgroup G01A (antimicrobial and antiseptic agents used in gynecology, with the exception of combined preparations containing corticosteroids) drugs containing fluconazole, unfortunately, there were no drugs. In the pharmaceutical market of Ukraine, there are 103 approximately registered drugs with fluconazole, which are mainly represented by imported manufacturers. The largest proportion of preparations (84.8%) are solid dosage forms (capsules and tablets). Among the latter, the largest part belongs to drugs in the form of capsules - 56.6%, the second place belongs to tablets - 28.3%. Liquid dosage forms are represented by solutions for infusions, which is about 14% of all medicines registered in Ukraine.

Obtained results. The analysis of the assortment allows us to conclude that at the domestic pharmaceutical market there are no drugs with the above active substance for local use in gynaecological practice. Therefore, the issue of creating new drugs based on fluconazole is relevant

from the point of view of modern medicine and pharmacy. This is also due to the fact that local dosage forms have a number of advantages over systemic ones. This is the ease of use and dosage, the creation of a high concentration of the active substance directly at the place of application of the drug, the minimum number of side effects on the patient's body.

Conclusions. The introduction of a new vaginal agent with antifungal pharmacological activity into the pharmaceutical market and into medical practice will provide an opportunity to increase the effectiveness of treatment of vulvovaginal candidiasis.

SOLUBILITY STUDY OF FEXOPHENADINE

Ahmad Joumblat, Herasymova I.
Scientific supervisor: Yarnykh T.
National University of Pharmacy, Kharkiv, Ukraine
iryna_herasymova@ukr.net

Introduction. In the modern formulation, gels are a more promising dosage form compared to ointments, since they have a pH close to the pH of the skin, do not clog the pores of the skin, they are quickly and evenly distributed, hydrophilic drugs can be introduced into the gel, and suspension gels can be made.

From the point of view of biopharmacy, which studies the action of drugs depending on their physical properties and preparation technology and dosage form, more drug release occurs when it is introduced into a dosage form in a dissolved form.

Purpose of the research. To investigate the solubility of fexofenadine in the most common solvents, basic and auxiliary substances used for the production of gels.

Materials and methods. Solubility tests of fexofenadine were carried out according to the article "Solubility" of the State Pharmacopoeia of Ukraine at a fixed temperature of 20 ± 2 ° C, using solvents of different polarity.

Obtained results. As a result of the solubility study, it was found that fexofenadine does not dissolve in water.

It is very easily soluble in ethanol 95% and in 5% sodium hydroxide solution, which is the best option for introducing it into modern Carbopol bases, as a solution with a neutralizing agent sodium hydroxide, which is necessary for thickening of polymer masses and creating a transparent product gel.

Fexofenadine is soluble in polyethylene glycols-400, glycerin, readily soluble in propylene glycol, which makes it promising to introduce it into a polyethylene oxide base of various molecular weights and combinations.

However, it is very slightly soluble in the universal solvent dimethyl sulfoxide and in oils, which is a problematic factor for the creation of ointment compositions on hydrophobic bases.

Additional studies on the selection of binary and ternary mixtures of solvents for fexofenadine revealed that it is readily soluble in binary mixtures of PEG-400 : ethanol (1 : 1), PEG-400 : PG (1 : 1), PEG-400 : DMSO (1 : 1) and a ternary mixture of PEG-400 : PG : DMSO (1 : 1 : 1).

Conclusions. The obtained results of studying the solubility of fexofenadine make it possible to choose a solvent for further introduction of the obtained solution into the composition of the future gel.