

- Пропіленгліколь
- Вода очищена
- Емульгатор

Фармакологічні властивості активних та допоміжних компонентів.

Ефірна олія чайного дерева – антисептична, протизапальна та протигрибкова дія, стимулює регенерацію клітин епідерміса, добре знімає свербіж, за рахунок вмісту терпїонели стримують ріст хвороботворних бактерій. Водний екстракт календули – протимікробна, протизапальна, регенеруюча, невелика заспокійлива дія, прискорює загоєння шкіри та слизових оболонок, знімає набряк та підвищує пружність шкіри. Водний екстракт алое – стимулятор рослинного походження, має тонузуючий, бактерицидний та бактериостатичний ефект.

96 % етанол – антисептична, дезінфікуюча дія. Етанол коагулює білки, активний відносно грампозитивних та грамнегативних бактерій та вірусів. Чинить дубульну дію на шкіру та слизові оболонки. Також використовується в якості консерванту.

Пропіленгліколь – використовують у якості зволожувача, розчинника та консерванта. Вода очищена - розчинник.

Емульгатор – це дифільна поверхнево активна речовина, що орієнтовано розподіляється на межі розділу двох рідин. Знижує поверхневий натяг та обволікаючи крапельки диспергованої речовини утворює адсорбційну плівку (що є головним фактором стабілізації емульсії).

Висновки. Теоретично обґрунтовано склад екстремпоральної емульсії на основі природних сполук для використання у ветеринарії, зокрема, для місцевої терапії - ефірну олію чайного дерева, водний екстракт календули, водний екстракт алое, 96% етанол, пропіленгліколь, воду очищену та емульгатор. Наступним етапом наших досліджень є експериментальне дослідження з вибору оптимального емульгатору, та провести дослідження з визначення стабільності емульсії протягом обраного терміну зберігання.

THE RELEVANCE OF THE DEVELOPMENT OF EXTERNAL PESSARIES ON THE BASIS OF SUBSTANCES OF NATURAL ORIGIN

Bounaga Soumaya, Levachkova Yu.V.

Scientific supervisor: Yarnykh T. G.

National University of Pharmacy, Kharkiv, Ukraine

lejuva15@gmail.com

Introduction. An actual problem in gynecological practice is currently the treatment of pathologies of infectious and inflammatory genesis, such as: colpitis, bacterial vaginosis, cervical erosion, etc. The etiology of diseases is diverse. The main reason is a violation of normal vaginal microflora. At the same time, normal microflora acquires pathogenic properties, and its representatives become causative agents of a number of diseases and the protective system of the genitals becomes too weak to resist the attack of urogenital infections. Factors such as lack of sexual hygiene, inadequate antibiotic treatment also contribute to development.

According to the literature, there is an expansion of schemes and methods of treatment of inflammatory gynecological diseases through the wide study and use of biologically active substances of essential oils and medicinal raw materials. Essential oils attract attention, first of all, as

inexhaustible sources of medicinal raw materials for the creation of medicines with antimicrobial, anti-inflammatory, reparative, immunomodulating action necessary for the successful fight against inflammatory diseases in women.

Among the medicinal forms used in the treatment of inflammatory diseases in gynecology, certain advantages are vaginal suppositories (pessaries), that is, external medications that reduce clinical manifestations and improve the epithelization of the affected tissues.

Aim. Thus, the development and justification of the composition of the anti-inflammatory medicine in the form of pessaries on the basis of substances of natural and synthetic origin is an urgent task of pharmacy.

Of particular interest are essential oils of higher plants and, in particular, tea tree, thyme, eucalyptus and other plants. They are known to have a wide range of antibacterial and antifungal activity. They are also characterized by high bactericidal, antiviral, immunostimulating action. As an antiviral agent in gynecology, tea tree oil is also used. It has antibacterial, anti-inflammatory, antiviral, fungicidal action. It has been shown that most bacteria are sensitive to tea tree in concentrations up to 1%, and some strains show sensitivity in higher concentrations, sometimes above 2%.

In pharmacotherapy of infectious and inflammatory diseases of urogenitalia, essential oil of thyme is also used. The composition of the above oil includes: thymol 30,0-35,0%, p-cymen -15,0-28,0%, linalool -4,0-6,5%, car- vakrol -1,0-4,0%, γ -terpinen – 5,0-10,0%, β -mircen - 1,0-3,0%, terpinen-4-ol - 0,2-2,5%. Thyme oil is known to have a wide range of antibacterial and antifungal activity. According to literary data, it is also characterized by high bactericidal, antiviral and immunostimulating pharmacological action.

For the treatment of inflammatory diseases of the female half of the sphere use advantageously local and antibacterial drugs.

Materials and methods. In order to develop extemporal pessaries, the methods of literature search in scientometric databases were used. Research objects: essential oils, vaginal suppositories, suppository bases, medicines.

Results and discussion. Oils are part of many medicines. Thus, the composition of the medicine "Romazulan" includes up to 6% azulene (one of the components of chamomile essential oil). The drug is used for the preparation of vaginal lotions, baths, irrigation in the complex treatment of vulvitis, inflammatory lesions of bacterial-fungal-protozoic etiology, etc. Anti-inflammatory, antispasmodic, bacteriostatic action have drugs "Urolesan," "Cystenal."

In medical practice, essential oils of such plants as eucalyptus, mint, sage, pine, anise (Vertex, Kharkiv) have become the most common. Companies of such leading countries as Austria, Russia, USA, Canada produce the substance of tea tree oil. Essential oils inhibit the activity of pathogenic microorganisms and contribute to the penetration of antibiotics into the human cell, thereby providing opportunities to reduce doses of antibiotics. One of the main producers of essential oils in Ukraine is Aromatica Ltd. The products of this company meet international standards and have international quality certificates.

Conclusions. The rates of inflammatory gynecological diseases are quite high both in our country and abroad, so the need to study the problem of treating these diseases is very actual. A consistent solution to this problem will contribute to improving women's reproductive health. Thus, the expansion of the range of schemes and methods of treatment of inflammatory pathologies in gynecology is promising through the wide study and use of biologically active substances of essential oils, and will also expand the range of medicines.