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**COMPARATIVE EFFICIENCY OF THE PREPARATION
"NODINORM" IN COMPLEX TREATMENT OF FIBROCYSTIC
MASTOPATHY**

Shoxista Sharofiddin qizi Meliboyeva*^{*}; Mizrob Mavlonovich Boltayev^{**};
Elvina Midatovna Sharipova***^{***}; Riboba Gulomaliyevna Sharipova****^{****}**

*Assistant,

Department of Pharmacology and Clinical Pharmacology,
Bukhara State Medical Institute, UZBEKISTAN

**Assistant,

Department of Pharmacology and Clinical Pharmacology
Bukhara State Medical Institute, UZBEKISTAN

***Assistant,

Department of Pharmacology and Clinical Pharmacology,
Bukhara State Medical Institute, UZBEKISTAN

****Assistant,

Department of Pharmacology and Clinical Pharmacology
Bukhara State Medical Institute, UZBEKISTAN

ABSTRACT

The pathology of the mammary gland is represented by such diseases as acute and chronic mastitis, fibrocystic mastopathy, gynecomastia, benign and malignant neoplasms, among which the greatest danger is cancer. Among nosological units, fibrocystic mastopathy occupies a special place, which, according to various authors, affects from 50 to 90% of women. Most often, women are sick at the age of 40-50 years. These changes in breast tissue are benign, but patients with mastopathy are at high risk of cancer [3]. A possible solution to the problem of treating patients with combined pathology of the uterus and mammary glands is the use of the domestic drug "Nodinorm" in the complex treatment of the main substance, which is indole-3-carbinol.

KEYWORDS: *Fibrocystic Mastopathy, Benign Tumor, Broccoli, Estrogens, Indole-3-Carbinol, Pharmaceutical Company Naturex, Nodinorm, Pharmaceutical Company Evalar, Indol-Forte.*

INTRODUCTION

Mastopathy is a common non-communicable disease. May occur in women of various ages. The main reasons for the formation are hormonal imbalance, neuroendocrine disorders. The neoplasm of the mammary gland is formed for a long time and may not manifest itself clinically for a long time. For treatment, medical and surgical correction is used [1,11].

Mastopathy is a fibrocystic disease characterized by a violation of the ratio of epithelial and connective tissue components, a wide range of proliferative and regressive changes in breast tissue [12].

This pathology is common in women of reproductive age. Most often, this disease occurs against the background of other gynecological diseases. The danger of mastopathy lies in the fact that this pathology belongs to precancerous diseases, against the background of which breast cancer can form. In the category of patients with mastopathy, the risk of developing malignant neoplasms is 3-5 times higher than in the general population of people [2, 8].

Factors contributing to the onset and development of breast pathology include:

- hereditary factor (presence of benign and malignant neoplasms in maternal relatives);
- neuroendocrine disorders;
- age over 40;
- Artificial termination of pregnancy;
- Obesity;
- prolonged mental stress;
- late first pregnancy;
- absence, short or long period of breastfeeding;
- age of first birth (women who have given birth to two children under 25 have a three times lower risk of developing breast diseases compared with those who had only one child);
- Early menarche and late menopause;

Combination with hyperplastic processes in other organs of the reproductive system;

- Patients with uterine fibroids who are expected to undergo hysterectomy with preservation of the uterine appendages are at an increased risk of the onset and progression of mammary dysplasia in the postoperative period[8].

Women can detect clinical signs of pathology on their own. Symptoms that should alert you:

- Soreness at the site of the neoplasm.
- Lump in the breast tissue.

- Swelling in the affected area.
- Enlargement and hardening of the lymph nodes in the armpits.
- Occurrence of nipple discharge. They are usually transparent serous. Can also be colostrum-like, greenish, yellow, brown[9].

Factors contributing to the onset and development of breast pathology include: hereditary factor (presence of benign and malignant neoplasms in maternal relatives), neuroendocrine disorders, age over 40, artificial termination of pregnancy,

obesity, prolonged mental stress, late first pregnancy, absence, short or long period of breastfeeding, age of first birth (women who have given birth to two children under 25 years of age have three times less risk of developing breast diseases compared with those who had only one child)[6].

Mastopathy is characterized by an increase in clinical symptoms in the premenstrual period. It is also important that the signs of the disease do not disappear after the end of menstruation [12].

Patients suffering from mastopathy should reduce the consumption of tea and coffee, quit smoking, include more vegetables (especially broccoli, as they contain a large amount of indole-3-carbinol) and fruits in the diet [11].

Of particular note is indole-3-Carbinol, contained in broccoli, which increases the efficiency of detoxification systems, which makes it possible to use it as a means of slowing down the aging process [1].

For the treatment of mastopathy, drug therapy is used, including the intake of non-hormonal agents (vitamins, vitamin-mineral complexes, adaptogens, galenic, diuretics, sedatives, hepatoprotectors, potassium preparations, enzymes, non-steroidal anti-inflammatory drugs, iodine preparations, etc.) [11,12].

One of them is "Nodinorm" - a domestic herbal preparation obtained from plants of the cruciferous family, in particular broccoli, containing highly purified indole-3-carbinol.

The aim of this study was to evaluate the clinical effectiveness of the use of the domestic drug "Nodinorm" from the company "Naturex", containing indole-3-carbinol, for the treatment of diffuse fibrocystic mastopathy (DPCM) in comparison with its foreign counterparts "Indol-Forte" from the company "Evalar", produced in the Russian Federation.

Main part

The study included 45 patients aged 25–45 years, all patients were diagnosed with DPCM during a comprehensive examination of the mammary glands, including examination, palpation, mammography and ultrasound. In this clinical study, the patients were divided into two groups: 30 of them took the domestic drug "Nodinorm" at 200 mg / day, and the remaining 15 patients took "Indol-Forte" from the company "Evalar" also at 200 mg / day, within 3-6 menstrual cycles. In the course of studies conducted among women suffering from benign dysplasia of the mammary glands and taking indole-3-carbinol-containing drugs

"Nodinorm" and "Indol-forte", significant improvements in the condition and well-being of patients in both groups were noted.

RESULTS AND DISCUSSION

In the course of the study, the effectiveness of the new multitarget domestic drug Nodinorm for the treatment of patients with cyclic mastalgia (mastodynia) and mastopathy was proved. Considering that the known mechanisms of action of indole-3-carbinol characterize it as a drug with an oncoprotective effect, this result is especially important in terms of preventing breast cancer in patients with cyclic mastalgia. ... The results of studies on the positive effect of indole-3-carbinol and 3,3'-diindolylmethane on clinical markers of increased risk of breast cancer (mastalgia, mastodynia and other manifestations of fibrocystic breast disease) confirm the important role of these molecules as preventive strategies for reducing risk of breast cancer.

After a 3- and 6-month course of treatment with Nodinorm, the following results were obtained during the examination of the patients. Completely completed the study (93.3%) of patients who noted the good tolerance of the drug. 1 patient (DFKM with a predominance of the fibrous component and a mixed form of DFKM) refused to take the drug for a long time and dropped out of the study due to the development of severe dyspeptic symptoms (nausea, diarrhea) during treatment with Nodinorm. Another patient with DPCM with a predominance of the glandular component stopped taking the drug due to the development of an allergic reaction. Such side effects are also possible for Indol-Forte, since these side effects are prescribed in the instructions for this drug.

After 6 months of taking Nodinorm, all 28 patients subjectively noted positive dynamics. At the same time, the disappearance of pain in the mammary glands in general was observed in 76.3% of women, a decrease in pain - in 23.7%. Among the latter, 17.5% noted mild pain in the mammary glands, and only 6.2% of women had moderate pain. Thus, no patient experienced severe pain after 6 months of taking Nodinorm.

The effect of Nodinorm develops gradually, reaching a maximum 6 months after the start of application. In the present study, the maximum clinical effect was achieved in patients with DPCM with a predominance of the cystic component.

CONCLUSION

Based on our comparison, we can say that the pharmacological effects of "Nodinorm" and "Indol-Forte" are practically similar and the domestic drug "Nodinorm" is in no way inferior to the drug "Indol-Forte". Both equally effectively coped with one of the main problems of diffuse fibrocystic mastopathy - mastalgia. It can also be noted that the drug Nodinorm has a very important - oncoprotective - property, this result is especially important in terms of preventing breast cancer, which gives us the opportunity to continue research in the future.

Based on the data obtained, it was concluded that the domestic drug "Nodinorm" can be recommended in the complex treatment of patients with DFKM.

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