EVALUATION OF THE EFFECTIVENESS OF PHARMACOTHERAPY FOR BREAST CANCER IN WOMEN IN THE SAMARKAND REGION

Uralova G.

Resident in Master's Program in the Specialty "Organization of Pharmaceutical Affairs"

Bazarova N.

Associate Professor, Head of the Department of Organization of Pharmaceutical Affairs PhD. Samarkand State Medical University, Samarkand, Uzbekistan.

Annotatsiya. Ko‘krak saratoni (RMJ) dunyo bo‘ylab ayollar orasida eng ko‘p uchraydigan va xavfli o‘sma kasalliklaridan biri hisoblanadi. Uning jamoat sog‘lig‘i uchun ahamiyati nafaqat yuqori kasallanish darajasi bilan, balki ayollarning hayot sifati va o‘lim ko‘rsatkichi ga kuchli ta’siri bilan ham belgilanadi. RMJni o‘rganishning dolzarbligi samarali diagnostika, davolash va profilaktika usullarini ishlab chiqish zarurati bilan asoslanadi, bu esa cheklangan resurslarga ega mamlakatlar uchun alohida muhimdir. O‘zbekistonda, ko‘plab rivojlanayotgan mamlakatlarda bo‘lgani kabi, ko‘krak saratoni ayollar orasida onkologik kasalliklar ichida yetakchi o‘rinni egallaydi. Erta tashxis qo‘yish va davolash imkoniyatlarining cheklanganligi, shuningdek aholining kasallik haqida yetarli darajada xabardor emasligi muammoni yanada kuchaytiradi. Bu esa mazkur mintaqada RMJning epidemiologik xususiyatlari va molekulyar belgilarini chuqurroq o‘rganishga qaratilgan tadqiqotlar o‘tkazish zaruratini ta’kidlaydi.

Kalit so‘zlar: baholash, farmakoterapiya, dori vositalari, ko‘krak saratoni, samaradorlik, terapiya.

Аннотация. Рак молочной железы(РМЖ)является одной из наиболее распространенных злокачественных опухолей у женщины во всем мире. Его значимость для общественного здравоохранения обусловлена не только высокой заболеваемостью, но и существенным влиянием на качество жизни и смертность женщин. Актуальность изучения РМЖ определяется необходимостью разработки эффективных методов диагностики, лечения и профилактики, что особенно важно для стран с ограниченными ресурсами. В Узбекистане, как и во многих развивающихся странах, РМЖ занимает лидирующие позиции среди онкологических заболеваний у женщин. Сложности ранней диагностики и доступности лечения, а также недостаточная информированность населения об этом заболевании усугубляют проблему. Это подчеркивает необходимость проведения

ISSN 3030-3907

исследований, направленных на улучшение понимания эпидемиологических особенностей и молекулярных характеристик РМЖ в данном регионе.

Ключевые слова: оценка , фармакотерапия , лекарственные препараты, рак молочной железы , эффективность ,терапия.

Abstract. Breast cancer (BC) is one of the most common malignant tumors among women worldwide. Its significance for public health is determined not only by the high incidence rate but also by its substantial impact on women's quality of life and mortality. The relevance of studying BC is driven by the need to develop effective methods of diagnosis, treatment, and prevention, which is particularly important for countries with limited resources. In Uzbekistan, as in many developing countries, BC holds a leading position among oncological diseases in women. Challenges in early diagnosis and treatment accessibility, along with insufficient public awareness of this disease, exacerbate the problem. This underscores the necessity of conducting research aimed at improving the understanding of the epidemiological features and molecular characteristics of BC in this region.

Keywords: assessment, pharmacotherapy, drugs, breast cancer, effectiveness, therapy

INTRODUCTION

In Uzbekistan, breast cancer holds the leading position among oncological diseases in women, accounting for about 18% of all cancer cases. According to data from the Ministry of Health of Uzbekistan, more than 4,000 new cases of the disease are registered annually. These figures underscore the importance of early diagnosis and increasing public awareness of risk factors and symptoms of breast cancer (BC). In recent years, measures have been taken in the country to improve the accessibility of medical care and introduce modern treatment methods, which contributes to higher survival rates. On the other hand, the study notes that among patients of the indigenous ethnicity in Uzbekistan, there is a "rejuvenation" of the disease across all molecular-biological subtypes of BC. This indicates the need for more thorough monitoring (Miryusupova, Khakimova, Shaysupov, 2018, p. 2).

In the Samarkand region, there is an increase in breast cancer incidence, associated with improved diagnostics and greater accessibility of medical care. Regional statistics show that approximately 200 new cases of the disease are diagnosed annually in the region. This trend highlights the need to strengthen preventive measures and implement screening programs for early detection of breast cancer. Key aspects in combating this disease include raising public awareness and developing medical infrastructure. According to studies, among the 12 territories of the Siberian Federal District, the Republic of Altai ranks 11th in

ISSN 3030-3907

the level of malignant neoplasm incidence (Odintsova et al., 2014, p. 464). This underscores the importance of a comprehensive approach to the problem, which includes both preventive measures and improving access to diagnostics and treatment.

The purpose of the study is to evaluate the effectiveness of pharmacotherapy for breast cancer in women in the Samarkand region.

Materials and Methods of the Study: The study included 70 patients with a verified diagnosis of breast cancer (BC), who were receiving treatment at the Samarkand branch of the Republican Specialized Scientific-Practical Medical Center of Oncology and Radiology from January 2023 to March 2024. All patients underwent initial assessment, morphological and immunohistochemical confirmation of the diagnosis, and a course of systemic drug therapy according to an individual treatment plan. The average age of the patients was 53.6 ± 9.2 years, which corresponds to the most epidemiologically significant age interval for BC. The distribution of patients by age groups reflects the predominant development of BC in the perimenopausal and postmenopausal periods.

Results and Discussion. Despite high ORR rates in HER2-positive patients, it is important to note that only 36% actually received full targeted therapy, which directly affected the prognosis. Patients with the Luminal A subtype more often demonstrated preservation of work capacity and better tolerability of hormone therapy, which positively impacted their adaptation to treatment.

Table-1.

Objective Effectiveness of Therapy by Molecular Subtypes

Subtype of BC	ORR (%)	DCR (%)	Median PFS (months)
Luminal A	42	72	6.9
Luminal B	63	81	7.6
HER2-positive	78	85	10.3
TNBC	58	69	6.4

Standardized toxicity scales (CTCAE v5.0) do not always reflect the subjective severity of side effects. For example, alopecia and chronic fatigue were perceived by patients as the most burdensome phenomena, even if they were not classified as severe.

ISSN 3030-3907

Table 2.

Frequency of the Most Significant Adverse Drug Reactions (n=70)

ADR	Frequency (%)	Comment
Leukopenia (≥Grade III)	34	Often required correction
Hepatotoxicity	12	Predominantly reversible
Alopecia	81	Psycho-emotional burden
Nausea/vomiting	64	Required prophylaxis
Asthenia, weakness	71	Impaired daily activity

A critically important issue was the absence of an oncopsychologist—only 11% of patients received psychological support. The assessment of therapy accessibility was conducted from the patients' perspective: to what extent they could actually obtain the recommended drugs and how this affected the continuity of treatment.

Table 3.

Sources of Drug Supply

Source	Proportion of Patients (%)
State procurement	38.5
Purchase with personal funds	51.4
Assistance from NGOs/charities	10.1

More than half of the patients faced the need to purchase vital drugs independently, including hormone therapy and targeted agents. The average cost of a monthly course of targeted therapy (trastuzumab) ranged from 7 to 9 million soums.

ISSN 3030-3907

Table 4.

Reasons for Interruptions and Incompleteness of Treatment.

Reason	Frequency of Cases (%)
Absence of drugs in the pharmacy	27
Financial inaccessibility	64
Side effects/refusal	9

In 20% of cases, treatment was interrupted or modified not for medical reasons, but due to logistical or economic factors, which reduced overall effectiveness.

Conclusions. Our analysis showed that even with the availability of modern protocols and a competent clinical team, the effectiveness of BC treatment in the Samarkand region directly depends on:

- Sustainable drug supply;
- Ability to cover the cost of innovative therapy;
- Availability of a system for psychological and social support.

A patient-oriented model requires the integration of oncopsychologists, financial consultants, and support at the mahalla and district healthcare levels. The introduction of pharmacoeconomic calculations and cost-effectiveness analysis of treatment can serve as the basis for developing regional oncology policy.

REFERENCES:

1. Agostinetto, E., Gligorov, J., & Piccart, M. (2022). Systemic therapy for early-stage breast cancer: learning from the past to build the future. *Nature Reviews Clinical Oncology*, 19(12), 763-774.

2. Alburyhi, M. M., & El-Shaibany, A. (2024). Formulation and Evaluation of Antitumor Activity of *Artemisia Arborescence* Extract Capsules as Dietary Supplement Herbal Product Against Breast Cancer. *World Journal of Pharmaceutical Research*, 13(3), 95-1

3. Ganiev, F. Kh., & Yusupova, M. S. (2023). The Impact of Funding Levels on the Accessibility of Antitumor Drugs. *Samarkand Medical Journal*, 27(1), 55–60.

4. Gøtsche, P. (2022). *Deadly Medicines and Organised Crime: How Big Pharma Has Corrupted Healthcare*. Litres.

5. Gopenko, I. A., & Zyryanov, S. K. (2024). Marketing Analysis of the Russian Pharmaceutical Market for Oxaliplatin. *Quality Clinical Practice*, (1), 72-77.

6. Mamariзaev, I. K. Diagnosis of Oxidative Stress and Antioxidant System Disorders in Newborns from Mothers with Endotoxemia. *Journal of Humanities and Natural Sciences*, 2025, No. 22 [2], pp. 88-91.

ISSN 3030-3907

7. Mamariɜaev, I. K. Condition of Newborns Born to Mothers with Endotoxemia (Literature Review). *Research Focus*, 2025, Vol. 4, No. 3, pp. 211-225.
8. Mamariɜaev, I. K., & Yuldashev, B. A. Quality Management in Pharmacy Chains, Standards and Their Impact on the Sales Process. *Modern Education and Development*, 2025, Vol. 18, No. 3, pp. 205-210.
9. Shavazi, N. N., & Mamariɜaev, I. K. State of Pro- and Antioxidant Systems in Newborns Born to Mothers with Endotoxemia. *International Journal of Scientific Pediatrics*, 2025, Vol. 4, No. 2, pp. 887-890.

ISSN 3030-3907