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ЛЕКАРСТВЕННЫЕ РАСТЕНИЯ В МЕДИЦИНЕ**MEDICINAL PLANTS IN MEDICINE**

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Аннотация: Статья посвящена пяти лекарственным растениям (Ятрышник мужской, Наперстянка пурпурная, Шалфей лекарственный, Олеандр обыкновенный, кувшинка белая). Анализируются происхождение их латинских названий, исторические представления (доктрина сигнатур, мифы) и современное фармакологическое действие. Рассмотрены активные вещества, терапевтические показания, токсичность при передозировке и охранный статус одного из видов. Показана связь между этимологией, традиционным использованием и доказательной медициной.

Abstract: The article focuses on five medicinal plants (*Orchis mascula*, *Digitalis purpurea*, *Salvia officinalis*, *Nerium oleander*, *Nymphaea alba*). It analyzes the origin of their Latin names, historical beliefs (doctrine of signatures, myths), and modern pharmacological effects. Active compounds, therapeutic indications, overdose toxicity, and the conservation status of one species are discussed. The connection between etymology, traditional use, and evidence-based medicine is demonstrated.

Ключевые слова: лекарственные растения, фармакогнозия, этимология, сердечные гликозиды, доктрина сигнатур.

Keywords: medicinal plants, pharmacognosy, etymology, cardiac glycosides, doctrine of signatures.

Medicinal plants have been used by humans for thousands of years. Ancient healers relied on observation, tradition, and sometimes mystical beliefs such as the "doctrine of signatures" – the idea that a plant's appearance indicates its medical use. Modern medicine has confirmed many of these traditional uses, while also revealing the chemical compounds responsible for therapeutic and toxic effects. An important aspect in this case is the study of the nomenclature of medicinal plant raw materials used in the Russian Federation in the manufacture of medicines. [3]

This article analyzes five medicinal plants: *Orchis mascula* (male orchid), *Digitalis purpurea* (purple foxglove), *Salvia officinalis* (garden sage), *Nerium oleander* (oleander), and *Nymphaea alba* (white water lily). The focus is on three aspects: 1) the origin and meaning of their Latin names, 2) historical context of use including myths and the doctrine of signatures, and 3) modern pharmacological action, therapeutic indications, toxicity, and conservation status.

Aim

To analyze and present five medicinal plants in terms of the origin of their Latin names, the historical context of their use, and their modern pharmacological action, in order to demonstrate the value of medicinal plants in medical practice.

Objectives

1. To reveal the etymology of the Latin names of each plant, explaining the connection between the name and the plant's characteristics (shape of tubers, appearance of the flower, mythological roots, properties).
2. To describe the historical context of the plants' use, including the doctrine of signatures and legends that influenced their names and usage.
3. To characterize the therapeutic use of the plants in modern medicine, their action, indicating the indications.
4. To indicate the toxicological action, emphasizing the difference between the therapeutic and lethal dose.
5. To note the conservation status as a factor limiting the use of plant material.

Results

***Orchis mascula* L. (Man Orchid)**

The genus *Orchis* comes from the Greek "orchis," meaning "testicle" (due to the shape of the paired tubers). The specific epithet *mascula* means "male." In the Middle Ages, it was believed that the tubers, resembling the male body, could cure impotence (the doctrine of signatures).

Medicinal uses: A unique demulcent called salep is prepared from the tubers. It is a remedy for poisoning (preventing the absorption of poison), heals stomach ulcers, treats diarrhea, and restores strength after exhaustion.

***Digitalis purpurea* L. (Purple Foxglove)**

The genus *Digitalis* comes from the Latin "digitus," meaning "finger," as the flower resembles a thimble. The specific epithet *purpurea* means "purple", referring to the most common flower color.

Medicinal uses: It contains cardiac glycosides (digoxin). It regulates the strength and rhythm of heart contractions. It is indispensable for heart failure. In large doses, it is fatally poisonous. To this day, a fully functional analogue has still not been synthesized.

Salvia officinalis L. (Garden Sage)

The genus name *Salvia* is derived from the Latin "salvere," meaning "to be healthy" or "to save." The specific epithet *officinalis* means "pharmaceutical" or "medicinal." [4]

Medicinal uses: A powerful antiseptic, anti-inflammatory, and astringent. It has a unique ability to reduce perspiration (blocks sweat glands). It helps with sore throat, stomatitis, menopause-related hot flashes, and for memory enhancement.

Nerium oleander L. (Oleander)

The genus name *Nerium* comes from the Greek "nerion" (meaning moist or fresh), which refers to its moisture-loving nature (or alternatively, from the name of the sea nymph Nereid). The species name *Oleander* is a distorted combination of the Latin "olea" (olive) and the Greek "dendron" (tree), as its leaves resemble those of the olive tree.

Medicinal uses: It contains cardiac glycosides (oleandrin), which in microdoses stimulate heart function, but in large doses are fatally poisonous. In modern medicine, its use is limited (mainly in homeopathy), but it is being actively studied as a potential anticancer agent.

Nymphaea alba L. (White Water Lily)

The genus *Nymphaea* is named after the nymphs — Greek deities of springs and rivers. According to legend, a nymph died from unrequited love for Hercules and was transformed into this flower. The specific epithet *alba* means "white."

Medicinal uses: The rhizome contains the alkaloid nympheine, which acts as a mild tranquilizer. It has soothing, fever-reducing (antipyretic), and anti-inflammatory properties. It is listed in the Red Book (Red Data Book). [1]

The five plants illustrate the evolution of medicinal plant knowledge. *Orchis mascula* represents a pre-scientific approach (doctrine of signatures) that is no longer used in evidence-based medicine, although salep itself has real demulcent properties. *Digitalis purpurea* and *Nerium oleander* show how a single class of compounds (cardiac glycosides) can be both a life-saving drug and a deadly poison

depending on dose. *Salvia officinalis* is a classic example of a plant that has fully transitioned from traditional panacea to modern phytotherapeutic agent with proven antiseptic and antiperspirant effects. *Nymphaea alba* combines mythological etymology with a mild pharmacological action, but its conservation status warns against overharvesting. The toxicological aspect is especially important for *Digitalis* and *Nerium*. Digoxin and oleandrin have a narrow therapeutic index – the difference between an effective dose and a toxic dose is very small. This underscores the need for standardized extracts and medical supervision.

Conclusion

The analysis of the five medicinal plants demonstrates that:

1. The Latin names of plants often encode valuable information about their morphology, habitat, mythology, or medical use.
2. Historical concepts such as the doctrine of signatures, while not scientifically valid, contributed to the empirical discovery of plant effects.
3. Modern pharmacognosy has identified the active compounds responsible for both therapeutic and toxic actions.
4. Cardiac glycosides from *Digitalis* and *Oleander* are powerful drugs requiring strict dose control.
5. Conservation status, as with *Nymphaea alba*, is an important factor limiting the use of wild plant material.

Medicinal plants remain a vital source of drugs and lead compounds for modern medicine. Their study requires an interdisciplinary approach combining botany, etymology, pharmacology, toxicology, and conservation biology.

СПИСОК ЛИТЕРАТУРЫ

1. Блинова К. Ф., Яковлев Г. П. Ботанико-фармакогностический словарь : справочное пособие. — Москва : Высшая школа, 1990.
2. Муравьева Д. А., Самылина И. А., Яковлев Г. П. Фармакогнозия : учебник для студентов фармацевтических вузов. — Москва : Медицина, 2002.

3. Проскурина, О. И. Ботаническая номенклатура как часть подязыка профессиональной коммуникации будущих провизоров / О. И. Проскурина, О. В. Махинова // Классические языки в современном профессиональном образовании : Сборник статей Всероссийской научно-методической конференции (с международным участием), Казань, 05–06 мая 2022 года / Под редакцией Н.Г. Николаевой, А.В. Ермошина. – Казань: Казанский государственный медицинский университет, 2022. – С. 94-100. – EDN WBCSHR.

4. Государственная фармакопея Российской Федерации XIV издание / Федеральная электронная медицинская библиотека. - URL: <https://femb.ru/record/pharmacopea14>.

5. Красная книга Российской Федерации (растения). — Москва : Товарищество научных изданий КМК, 2008.

REFERENCES

1. Blinova, K. F., Yakovlev, G. P. Botanical and Pharmacognostic Dictionary : Reference Guide. — Moscow : Vysshaya Shkola, 1990.

2. Muravyova, D. A., Samylina, I. A., Yakovlev, G. P. Pharmacognosy : Textbook for Students of Pharmaceutical Universities. — Moscow : Meditsina, 2002.

3. Proskurina O.I. Botanical nomenclature as a part of the sublanguage of professional communication of future pharmacists/ O.I.Prskurina, O.V.Makhinova// Classical languages in modern professional education : Collection of articles of the All-Russian Scientific and Methodological Conference (with international participation), Kazan, 05-06 May 2022 / Edited by N.G. Nikolaeva, A.V. Ermoshin. – Kazan: Kazan State Medical University, 2022. – С. 94-100. – EDN WBCSHR.

4. State Pharmacopoeia of the Russian Federation. XIV Edition. - URL: <https://femb.ru/record/pharmacopea14>.

5. Red Data Book of the Russian Federation (Plants). — Moscow : KMK Scientific Press, 2008.