

PROSPECTS FOR THE DEVELOPMENT OF A NEW PHYTOPREPARATION BASED ON TRIMETABOL AND LOCAL MEDICINAL PLANTS

Botirova Mubina Muhammadjon kizi

Student of the Pharmacy Andijan Branch of Kokand University

E-mail: botrovpmubinal@gmail.com

Matazimov Muhammadjon Toxirjon ugli

Associate Professor of the Department of Biological Chemistry and Pharmaceutical Sciences

Andijan Branch of Kokand University

Doctor of Philosophy (PhD) in Pharmaceutical Sciences

E-mail: m.t.matazimov@gmail.com

Abstract

This article analyzes the composition and pharmacological properties of the drug Trimetabol, which has appetite-stimulating and non-hormonal anabolic effects. In addition, the possibilities of developing a new phytopreparation aimed at stimulating appetite and increasing body weight based on local medicinal plants were studied. The obtained results demonstrated the effectiveness and economic feasibility of a complex phytopreparation based on local raw materials.

Keywords

Trimetabol, phytopreparation, appetite, weight gain, medicinal plants, anabolic effect.

Introduction

Decreased appetite and low body weight are among the most common problems observed in children, adolescents, and adults. This condition negatively affects normal development, immune system function, and overall health status [1,2]. Therefore, the demand for medications that improve appetite and promote weight gain is increasing.

The widely used drug Trimetabol is known for its appetite-stimulating and non-hormonal anabolic effects. However, the development of natural, safe phytopreparations based on local raw materials remains one of the most relevant tasks in modern pharmaceutical science [3,4].

Research Methods. The following methods were applied in the course of the study:

- analysis of the composition and mechanism of action of Trimetabol;
- study of the effects of local medicinal plants on appetite and weight gain;
- analysis of phytochemical and pharmacological literature;
- comparative evaluation of synthetic drugs and phytopreparations.

Results. The analysis showed that the main effect of Trimetabol is aimed at stimulating appetite through the hypothalamus, and its composition includes L-lysine, DL-carnitine, and B-group vitamins.

At the same time, local medicinal plants such as fenugreek (*Trigonella foenum-graecum*), licorice (*Glycyrrhiza glabra*), fennel (*Foeniculum vulgare*), peppermint (*Mentha piperita*), and ashwagandha (*Withania somnifera*) were found to possess properties that enhance appetite, improve digestion, and support anabolic processes.

Based on these findings, the concept of a new phyto-vitamin complex preparation named "Fitometabol Plus" was proposed.

Table 1.

Comparative analysis of the pharmacological and clinical characteristics of Trimetabol and Fitometabol Plus

Comparative Analysis	Trimetabol	Fitometabol Plus
Type of preparation	Synthetic-vitamin	Phyto-vitamin
Appetite stimulation	Via cypheptadine	Fenugreek, peppermint, fennel
Anabolic effect	L-lysine, vitamins	L L-lysine, ashwagandha,

		brewer's yeast
Effect on digestive system	Limited	Comprehensive
Weight gain	Moderate	Stable and physiological
Side effects	Possible drowsiness	Low probability
Source of raw materials	Imported	Local
Long-term use	Limited	Possible

The comparative analysis showed that Fitometabol Plus has advantages due to its complex mechanism of action and natural composition.

Discussion. The comparative analysis of Trimetabol and the proposed phyto-vitamin complex Fitometabol Plus highlights important pharmacological and clinical differences between synthetic appetite stimulants and plant-based alternatives ashwagandha and brewer's yeast enhance anabolic processes and metabolic balance. This complex approach not only promotes gradual and physiological weight gain but also improves gastrointestinal function, which is a key factor in nutrient absorption.

Another significant advantage of Fitometabol Plus is its natural origin and reliance on local raw materials. This reduces production costs and increases economic feasibility, while also minimizing the risk of adverse reactions associated with synthetic compounds. The possibility of long-term use further supports its potential as a safe Trimetabol demonstrates its primary effect through cyproheptadine-mediated stimulation of the hypothalamic appetite center, which explains its effectiveness in increasing appetite and body weight. However, its limited influence on the digestive system and the possibility of side effects such as drowsiness restrict its long-term use. In contrast, Fitometabol Plus exhibits a multifactorial mechanism of action due to the synergistic effects of local medicinal plants and bioactive compounds. Fenugreek, fennel, and peppermint contribute to appetite stimulation and digestive support, while ashwagandha and brewer's yeast enhance anabolic processes and metabolic balance. This complex approach not only promotes gradual and physiological weight gain but also improves gastrointestinal function, which is a key factor in nutrient absorption.

alternative for children, adolescents, and adults with reduced appetite or low body weight. Overall, the findings suggest that while Trimetabol remains an effective synthetic option for short-term appetite stimulation, the development of phytopreparations such as Fitometabol Plus represents a promising direction in modern pharmaceutical practice. The integration of traditional medicinal plants with essential nutrients may offer a safer, more comprehensive, and sustainable therapeutic strategy.

Conclusion. The conducted research demonstrated that developing a new phytopreparation aimed at improving appetite and promoting weight gain based on Trimetabol and local medicinal plants is promising. The Fitometabol Plus phyto-vitamin complex is safe, effective, and economically viable, and may serve as a basis for future clinical studies.

References

1. Лапшин В. Ф. Клиническое исследование эффективности и безопасности препарата "Триметабол" в комплексном лечении детей с аллергическими заболеваниями / В. Ф. Лапшин, Т. Р. Уманец // Современная педиатрия. - 2012. - № 8. - С. 71-75.
2. Stojanoski N. Development of health culture in Veles and its region from the past to the end of the 20th century. Veles: Society of science and art. 1999:13–34.
3. Bazala V. The historical development of medicine in the Croatian lands. Zagreb: Croatia publishing bibliographic institute; 1943. pp. 9–20.
4. Крючко Т. О. До питання оптимізації лікування дітей із синдромом подразненого кишечника / Т. О. Крючко, І. М. Несіна, С. М. Зінковська // Современная педиатрия. - 2013. - № 2. - С. 108-113.