DEVELOPMENT OF NEW PHARMACEUTICAL PRODUCTS BASED ON THE PLANT OBJECT *ELAEAGNUS ANGUSTIFOLIA L.*

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https://doi.org/10.5281/zenodo.17339416

Relevance: The increase in chronic diseases, multi-organ pathology, and complications from long-term use of synthetic drugs necessitates the search for alternative sources of medicines with minimal side effects. In this context, interest in herbal medicines with comprehensive effects and good tolerability is growing. *Elaeagnus angustifolia* (narrow-leaved oleaster) has traditionally been used in folk medicine as an analgesic and anti-inflammatory agent. Modern studies confirm the presence of bioactive compounds (BACs) in this plant, which can serve as the basis for the development of effective and safe pharmaceutical products, exhibiting antioxidant, analgesic, and antibacterial activities.

Objective. To review current data on the chemical composition and pharmacological properties of *Elaeagnus angustifolia* as a basis for the development of new pharmaceutical products.

Materials and Methods. Literature analysis was carried out using PubMed, Scopus, and eLibrary databases for the period 2015–2024. Publications on the phytochemical composition, mechanisms of action, and applications of plant extracts were considered.

Results. Studies have shown that extracts from the fruits, leaves, and flowers of *Elaeagnus angustifolia* contain flavonoids such as quercetin and isorhamnetin, as well as polyphenolic compounds, tannins, amino acids, organic acids, vitamins (C, E), and trace elements. These components provide pronounced antioxidant, analgesic, anti-inflammatory, and antibacterial properties. For example, fruit extracts demonstrated the ability to inhibit DPPH and ABTS radicals as well as superoxide anions, confirming their antioxidant activity.

Clinical studies confirm the efficacy of *Elaeagnus angustifolia*-based preparations in the treatment of inflammatory joint diseases and pain syndromes. One randomized controlled trial showed that *Elaeagnus angustifolia* extract in combination with *Boswellia thurifera* exhibited anti-inflammatory and analgesic effects comparable to ibuprofen in patients with knee osteoarthritis.

Additionally, *Elaeagnus angustifolia* extracts demonstrated hypoglycemic activity. Animal studies showed that polysaccharides from the plant's fruits reduced blood glucose levels in mice with type 2 diabetes.

Conclusions. *Elaeagnus angustifolia* is a promising object for pharmaceutical development due to its high content of BACs and multifaceted pharmacological activity. The creation of new herbal medicines requires further research on raw material standardization, optimization of extraction methods, study of mechanisms of action, and preclinical and clinical trials. An important direction is the development of innovative dosage forms (nano-structured extracts, phytogels, dietary supplements), which will enhance the bioavailability and effectiveness of active compounds.