

PHARMACEUTICAL CARE OF AMIODARONE USAGE IN THE ELDERLY WITH ATRIAL FIBRILLATION

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Introduction. The frequency of atrial fibrillation (AF) is significantly impacted by age, with a higher incidence found as persons age. Among those aged 60 to 70 years, roughly 4.2% have AF, a figure that dramatically increases to 17% among those aged 80 years or beyond. The demographic change highlights the substantial influence of aging on the occurrence of AF. Additionally, it is important to mention that AF is a prevalent diagnosis among older patients, as 25% of senior adults admitted to the hospital for different causes are diagnosed with AF. Therefore, healthcare personnel often struggle with managing atrial fibrillation in elderly patients. Amiodarone is a widely utilized medicine for treating atrial fibrillation due to its distinctive pharmacological characteristics. This medication is classified as a class III antiarrhythmic drug and is known for its broad range of action. The unique way in which it works is by extending phase 3 of the cardiac action potential, with a special focus on the repolarization phase. During this stage, there is usually a reduction in the capacity of calcium to pass through and an increase in the ability of potassium to pass through.

Goal of research. Pharmaceutical care of the use Amiodarone in elderly people with atrial fibrillation.

Methods of research. To achieve this goal, methods of analysis were studied, and the data from scientific sources were updated and revealed to highlight current trends in atrial fibrillation treatment in elderly.

Results. Amiodarone has superior efficacy compared to propafenone and sotalol in the prevention of atrial fibrillation relapses. The minimal annual patient treatment thresholds for achieving an atrial fibrillation preventive effect are as follows: 3 for amiodarone, 4 for flecainide, 5 for dofetilide and propafenone, and 8 for sotalol. Amiodarone is effective in those who have repeated symptomatic episodes of atrial fibrillation, even after being treated with conventional antiarrhythmic drugs. Amiodarone is unique among antiarrhythmic medications since it may be administered to individuals with organic heart disease, including those with heart failure, without any associated risks. Amiodarone has a reduced propensity to elicit drug-induced arrhythmia torsade de pointes in comparison to "pure" potassium channel blockers, perhaps due to the inhibition of distinct ion channels. However, there have been recorded cases of medication-induced proarrhythmia when amiodarone is used, which requires careful monitoring of QT interval values.

In the older population, the administration of medication might potentially result in a decrease in heart rate. Exercise caution while administering it to elderly individuals due to the possibility of bradycardia. Amiodarone induces changes in the electrocardiogram (ECG). These alterations include the elongation of the QT interval due to a prolonged repolarization process, which may lead to the appearance of

a U wave. This demonstrates the therapeutic effectiveness of the medicine, as opposed to its harmfulness. Before starting the drug, it is crucial to do a radiographic examination of the lungs, assess the hormone levels of the thyroid gland, examine liver function by transaminase activity, and measure the concentration of plasma electrolytes.

Conclusions. Modern management of atrial fibrillation in elderly includes antiarrhythmic drugs such as amiodarone, ibutilide, sotalol, flecainide, and propafenone as therapy enhances the probability of restoring normal heart rhythm. Amiodarone most used in elderly with atrial fibrillation, may be beneficial in people with a heart rate that is unresponsive to other treatments. Pharmaceutical care of elderly will include revisions of therapy to prevent side effects and interactions, diminish polypharmacy and prolongate lifespan.

STUDY OF POTENTIAL PHARMACOLOGY ACTIVITY ENICOSTEMMA LITTORALE

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Introduction. The relevance of studying the problem of diabetes treatment is determined by the significant prevalence of the disease among the population, its chronic course, high disability and mortality. The problem of treating diabetes is also the search for effective drugs that affect the pathogenetic mechanisms of its development and are aimed at restoring the function of β -cells of the pancreas and liver, in particular, reducing the level of glucose, increasing the activity of enzymes of the body's antioxidant defense system. In the prevention and treatment of type 2 diabetes, along with synthetic drugs, the importance of phytotherapy is constantly growing, which is due to the low toxicity and biological safety for the body of most herbal preparations, relatively rare manifestations of allergic reactions, which determines the possibility of their use in the treatment of both early stages and patients with chronic forms of the disease.

Enicostemma littorale is a tropical perennial herbaceous plant of the gentian family, which is common in South America, Africa and Asia. This plant is known to be used as a substitute for chiretta (*Swertia chirata*), a well-known anti-diabetic remedy. Literature data show that *Enicostemma littorale* has various pharmacological activities: antidiabetic, anti-inflammatory and antimicrobial activity. *Enicostemma littorale* also has a cytoprotective effect.

The purpose of the study is to evaluate the probable pharmacological potential of biologically active substances that are part of the *Enicostemma littorale* plant.

Materials and methods. As objects of research, we chose known phytocomponents of this plant: lupeol, svertiamarin, α -aminarin acetate, the structural formulas of which are given in the literature. We made a prediction of the biological activity of the compounds contained in the extract of *Enicostemma littorale*.