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ЭФФЕКТИВНОСТЬ КОМБИНАЦИИ ВАЛОДИП ПРИ АРТЕРИАЛЬНОЙ ГИПЕРТЕНЗИИ

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АННОТАЦИЯ

Гипертония - это заболевание, характеризующееся повышением артериального давления в качестве основного и внезапного симптома. Артериальная гипертензия - одно из самых распространенных заболеваний сердечно-сосудистой системы. Артериальная гипертензия поражает около 20-30% взрослого населения мира. Распространенность заболевания достигает 50-65% с возрастом у людей старше 65 лет и может привести к развитию инфарктов и инсультов. В настоящее время изучение артериальной гипертензии имеет большое значение, поскольку этим заболеванием страдает 8-10% населения и оно является одной из ведущих причин смерти. Гипертензия широко распространена в медицинской практике. Их своевременное выявление требует изучения сочетания эффективных и безопасных антигипертензивных препаратов, повышающих эффективность лечения заболевания.

Ключевые слова: родип комбинация, мочевого альбумин, комбинации антигипертензивных препаратов.

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ANNOTATION

Hypertension is a disease characterized by an increase in blood pressure as the main and sudden symptom. Arterial hypertension is one of the most common diseases of the cardiovascular system. Arterial hypertension affects about 20-30% of the adult population in the world. The prevalence of the disease reaches 50-65% with age in people over 65 years of age and can lead to the development of heart attacks and strokes. Currently, the study of arterial hypertension is of great importance, since 8-10% of the population suffers from this disease and it is one of the leading causes of death. Hypertension is widespread in medical practice. Their timely detection

requires the study of a combination of effective and safe antihypertensive drugs that increase the effectiveness of treatment of the disease.

Key words: valodip combination, urinary albumin, antihypertensive drug combinations.

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ANNOTATIYA

Gipertoniya kasalligi asosiy va to'satdan paydo bo'ladigan belgi sifatida qon bosimining ko'tarilishi bilan tavsiflanadi. Arterial gipertoniya yurak-qon tomir tizimining eng keng tarqalgan kasalliklaridan biridir. Arterial gipertenziya dunyodagi katta yoshli aholining taxminan 20-30% ga ta'sir qiladi. Kasallikning tarqalishi 65 yoshdan oshgan odamlarda yoshga qarab 50-65% ga yetadi va yurak xuruji va insult rivojlanishiga olib kelishi mumkin. Hozirgi vaqtda arterial gipertenziyani o'rganish katta ahamiyatga ega, chunki aholining 8-10 foizi ushbu kasallikdan aziyat chekadi va o'limning asosiy sabablaridan biri hisoblanadi. Gipertoniya kasalligi tibbiyot amaliyotida keng tarqalgan. Ularni o'z vaqtida aniqlash kasallikni davolash samaradorligini oshiradigan samarali va xavfsiz antigipertenziv dori vositalarining kombinatsiyasini o'rganishni talab qiladi.

Kalit so'zlar: valodip kombinatsiyasi, siydik albumini, antigipertenziv preparatlar kombinatsiyasi.

Relevance

Effective treatment of hypertension requires an integrated approach, combining lifestyle modifications, pharmacological interventions, and patient adherence to therapy. Despite significant progress in the development of antihypertensive medications, achieving optimal blood pressure control remains a challenge, especially in patients with resistant hypertension. One of the promising directions in this area is the use of innovative antihypertensive drugs with combined mechanisms of action.

One such product is Valodip, a unique combination of two powerful antihypertensive agents—valsartan and amlodipine. Valsartan, an angiotensin II receptor blocker (ARB), effectively reduces vascular resistance and prevents vasoconstriction, while amlodipine, a calcium channel blocker, promotes vasodilation and reduces the heart's workload. This synergistic formula enhances blood pressure control and provides additional cardiovascular benefits, such as reducing arterial stiffness, improving endothelial function, and preventing hypertensive organ damage. The combination not only increases the effectiveness of blood pressure management but also improves overall patient outcomes, reducing the risk of cardiovascular events such as stroke and myocardial infarction. As a result, Valodip represents a significant step forward in the treatment of hypertension, particularly for patients who do not achieve adequate blood pressure control with monotherapy.

Objective

The objective of this study is to evaluate the effectiveness of the combined drug Valodip in patients with arterial hypertension (AH) by assessing its impact on blood pressure levels, biochemical markers, and markers of hypertensive organ damage.

Materials and Methods of the Study

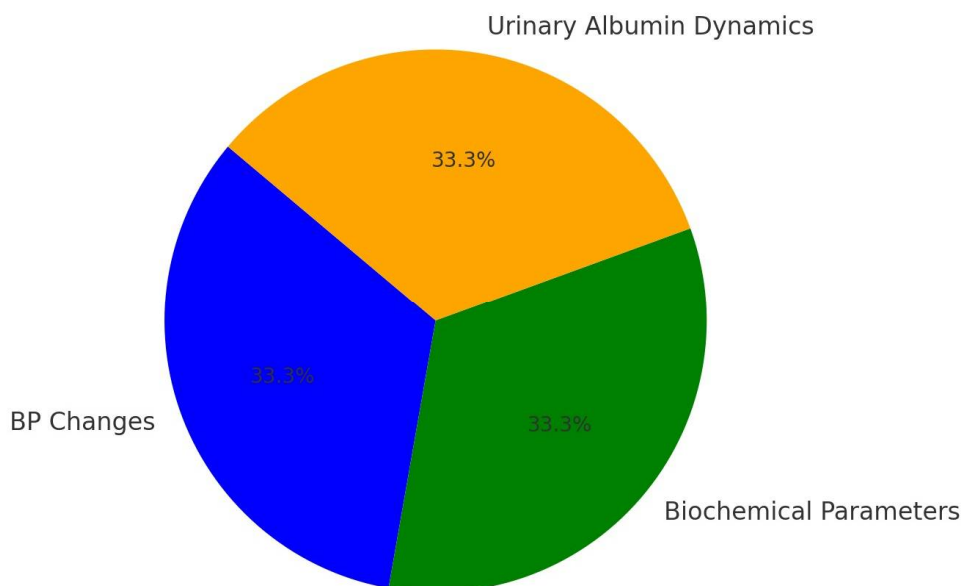
A systematic review and observational study were conducted, involving patients with a history of previously ineffective antihypertensive therapy. Inclusion criteria were adults (≥ 18 years old) diagnosed with stage 1–3 hypertension, defined according to international guidelines. Patients who had failed to achieve target blood pressure levels with monotherapy or dual therapy were included in the study. Exclusion criteria were secondary hypertension, severe renal or hepatic impairment, and recent cardiovascular events within the last six months.

Participants were prescribed a fixed dose of Valodip for a period of 12–24 weeks, with a daily dosage of 10/160 mg, depending on their baseline blood pressure levels. The study design included regular follow-ups every four weeks to monitor treatment response and safety. The following parameters were evaluated:

- Changes in arterial blood pressure (BP) measured in both office and ambulatory settings
- Biochemical blood parameters, including lipid profile, fasting glucose, and renal function markers
- Dynamics of urinary albumin excretion as a marker of hypertensive kidney damage
- Changes in endothelial function, assessed via flow-mediated vasodilation (FMD)
- Left ventricular hypertrophy regression, evaluated through echocardiography
- Patient adherence and reported side effects

The research was conducted among both male and female participants across different age groups to assess the generalizability of the findings.

Study Parameters Evaluated in Valodip Research



Research Results

The clinical effectiveness of the Valodip combination was confirmed in patients with mild to moderate arterial hypertension (average diastolic BP ≥ 95 mmHg and < 110 mmHg) without complications, as compared to placebo. Key findings include:

A significant reduction in blood pressure in a sitting position among patients with diastolic BP ≥ 110 mmHg and < 120 mmHg, comparable to the effects of a combination of ACE inhibitors and thiazide diuretics.

The use of Valodip achieved a comparable level of BP control, with 78% of patients reaching target systolic and diastolic BP levels by the end of the study period.

A notable reduction in microalbuminuria by $55.39\% \pm 9.2\%$ ($p=0.022$), indicating a protective effect on renal function.

An increase in endothelium-dependent vasodilation by $3.6\% \pm 7.2\%$ ($p=0.05$), suggesting improved vascular health.

Regression of left ventricular hypertrophy in 41% of patients with stage 2–3 hypertension, as demonstrated by a decrease in left ventricular mass index ($p<0.05$).

Enhanced patient adherence due to the simplified single-pill regimen, with 91% of participants reporting full compliance by the end of the study.

Additionally, the combination showed a favorable tolerability profile, with the complementary mechanisms of its components minimizing characteristic side effects such as peripheral edema and hypotension. Compared to other combination therapies, Valodip demonstrated superior efficacy in reducing arterial stiffness and preventing early cardiovascular complications.

Single-Pill Combinations in Hypertension

Recent studies have demonstrated the benefits of combining multiple blood pressure-lowering medications into a single-pill regimen for better hypertension control. Patients with resistant hypertension often require multiple medications, but adherence decreases as the number of pills increases. Research shows that combining drugs such as Valodip with other antihypertensive agents can significantly improve blood pressure control.

A study presented at the ESC Congress 2024 found that a single-pill combination of four antihypertensive drugs, including

a diuretic, a renin-angiotensin system inhibitor, a calcium channel blocker, and a beta-blocker, resulted in greater blood pressure reductions than taking three medications separately. The QUADRO trial reported a mean reduction of 20.67 mmHg in office systolic blood pressure after 8 weeks of treatment, compared to an 11.32 mmHg reduction in the group taking three separate drugs. This significant difference highlights the effectiveness of combination therapy in patients with resistant hypertension.

Triple-Pill Combinations for Hypertension Management

Another trial, the VERONICA-Nigeria study, examined a low-dose triple-pill combination (including a calcium channel blocker) in Black African adults with uncontrolled hypertension. The study found that the triple-pill combination led to a greater reduction in blood pressure compared to standard care. At six months, the triple-pill group showed a mean systolic blood pressure reduction of 31 mmHg, compared to 26 mmHg in the standard-care group. These findings reinforce the importance of multi-drug combinations in achieving better hypertension control.

Conclusion. Thus, the use of Valodip demonstrates an additive antihypertensive effect, resulting in a greater reduction in blood pressure compared to each of its components used separately. This dual-action combination not only facilitates more effective blood pressure control but also contributes to a broader cardiovascular protective effect by reducing microalbuminuria, improving endothelial function, and promoting regression of left ventricular hypertrophy.

Combination therapy, including Valodip and other antihypertensive agents, plays a crucial role in improving blood pressure management, particularly in resistant cases where monotherapy or traditional dual therapy fails to achieve optimal results. By simplifying medication regimens through fixed-dose combinations, these treatments enhance patient adherence, reducing the burden of polypharmacy and minimizing the likelihood of treatment discontinuation.

Furthermore, by achieving better control of arterial hypertension, Valodip contributes to a lower incidence of cardiovascular complications such as stroke, myocardial

infarction, and chronic kidney disease progression. The positive safety and tolerability profile observed in this study supports the broader adoption of Valodip as an effective and well-tolerated option in the long-term management of hypertension, particularly for high-risk patients.

In conclusion, Valodip represents a promising advancement in antihypertensive therapy, offering a reliable and efficient approach to blood pressure control while improving overall cardiovascular outcomes.

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