



THE STUDY OF THE EFFECT OF MEDICINAL PLANTS ON BLOOD PRESSURE

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Relevance: According to the literature, arterial hypertension is one of the most widespread diseases today. Alongside pharmaceutical drugs, traditional remedies and medicinal plants are widely used because they are natural, affordable, and have fewer side effects. Therefore, the use of medicinal plants in treatment is of great importance.

Purpose of the study: As a result of reforms in our country, special attention is being paid to the creation of medicines based on local medicinal plants for the prevention and treatment of various pathologies, proving their therapeutic activity, and providing the population with safe and inexpensive preparations. In this regard, analyzing the effects of medicinal plants on blood pressure and identifying possibilities for their application in practice has great scientific importance, as it allows for the development of effective, safe, and affordable medicines and biologically active supplements from plant sources.

Methods: The effect of plant infusions or extracts on blood pressure is measured in laboratory animals (rats, mice, rabbits) using special devices (tonometer, manometer). Pharmacological tests include measurements of heart rate, vascular dilation, or constriction. Clinical-methodological approaches involve administering plant teas or infusions to laboratory animals or patients, followed by regular monitoring of blood pressure. Blood tests are conducted to evaluate the effect of plant substances on blood composition (cholesterol, glucose, electrolytes). Instrumental methods involve measuring systolic and diastolic pressure with a tonometer on a regular basis.

Results: By administering plant preparations to patients, their effects on blood pressure, heart rate, and other health indicators are studied. Flavonoids, saponins, alkaloids, and essential oils found in plants affect vascular tone, helping to maintain normal blood pressure.

- Plants that lower blood pressure: hawthorn, mint, dill, garlic, motherwort, lemon balm.
- Plants that increase blood pressure: ginseng, eleutherococcus, schisandra.

Examples:

- Garlic (*Allium sativum*) dilates blood vessels and lowers blood pressure.
- Motherwort (*Leonurus cardiaca*) has a calming effect and normalizes heart function.
- Rosehip (*Rosa canina*) strengthens the cardiovascular system and improves circulation.
- Eleutherococcus raises blood pressure and reduces fatigue.
- Chamomile (*Matricaria chamomilla*) provides a calming effect and indirectly stabilizes blood pressure. Some plants strengthen the heart muscle, while others have a calming effect on the nervous system or stimulate circulation, leading to an increase in blood pressure. Long-term use of plant-based infusions and decoctions causes fewer side effects compared to chemical drugs, but excessive use without medical supervision may have negative consequences.

Conclusions: It is known that deficiencies of proteins, vitamins, amino acids, and essential microelements in the diet significantly influence the effect of medicinal plants on blood pressure, making their study of great scientific and practical importance. Medicinal plants can help alleviate both hypertension and hypotension. Rational use of medicinal plants is effective in the prevention and treatment of blood pressure disorders. When phytotherapy is combined with modern medicine, more positive results can be achieved.