

appropriate age. In all patients, we have found disorders of structural-functional state of bone. SFSB examination of patients in both groups has been revealed a decrease in mineral density and disorders bone architectonics, which has been corresponded to osteopenia II degree (average value of T-score in both groups has been $-1,75 \pm 0,08$ (SD). The values (SI and T-score) have been significantly smaller in the first group of patients. SI in the first group patients has been lower by 31.2%, while in the second group of patients (25.1%) in comparison with a group of healthy patients. We have identified an inverse correlation ($r = -0,32$) between serum uric acid levels and SI of bone.

To evaluate the effect of the severity of osteoarthritis on the structural and functional status of bone tissue, we formed two groups of patients, depending on the radiological stage of osteoarthritis. In the group of patients with the first x-ray stage of osteoarthritis, the values of T-score were comparable, they were -1.67 ± 0.09 SD at the first radiological stage and -1.71 ± 0.07 SD in the second radiological stage.

Conclusions. In patients with combined gout and osteoarthrosis, there are disorders of bone architectonics and a decrease mineral density. Structural-functional state of bone in patients with primary gout and degenerative joint disease undergoes changes, the severity of which depends on the degree of hyperuricemia. More significant changes observed in patients with hyperuricemia exceeding values 620mmol/l. The severity of osteoarthritis is not a determining factor that affects structural-functional state of bone.

Dr George Aheto¹, Davis E.K. Henry², Andrusha A.B.²
EFFECT OF GINGER-GARLIC MIXTURE (ORGANIC NATURAL SPICE) ON THE EFFECTIVENESS OF COMPLEX THERAPY IN GHANAIANS PATIENTS WITH HYPERTENSION AND CONCOMITANT DIABETES MELLITUS II

¹Wasa Dadieso Community Hospital, Western Region, Republic of Ghana

²Kharkiv National Medical University, Kharkiv, Ukraine

Introduction. Ginger is a common rhizome used in many parts of the world, especially in Africa. According to research from the University of Sydney, Australia, it was discovered that Ginger contained an active components called Gingerols. Gingerols have been found to increase the uptake of glucose from the blood into muscle cells without the insulin participation. Thus in turn reducing blood glucose by significantly. In the literature there are data on the positive effect of ginger on the state of the vascular wall and, in particular, on its vasodilatory effect in smaller peripheral arteries which aids in blood circulation. Increase blood circulation by physiology usually causes a thermogenic effect aiding in metabolism as well as calorie burning. From the

point of view of alternative medicine, garlic is one of the natural products with many positive effects on the human body. It is often recommended to use it for patients with some cardiovascular diseases that include dyslipidemia, ischemic heart disease and hypertension. The active ingredient in garlic is known to be allicin. Garlic's ability to lower the blood pressure is multifactorial and includes: increasing the availability and activities of nitric oxide, inhibiting ACE thereby reducing a number of pathways that are known to decrease plasma volume and vasoconstriction.

The aim of the research - is to estimate the effect ginger-garlic mixture (organic natural spice) consumption on the effectiveness of therapy in Ghanaians patients with hypertension and concomitant diabetes mellitus type II.

Materials and methods. 37 patients 39-65 years old who suffered from hypertension and diabetes mellitus type 2 (mild form) were included in the research (15 men and 22 women). All patients had traditional treatment of hypertension and diabetes mellitus type II including pharmacological drugs and nonpharmacological measures (lifestyle and nutrition modification) specific for hypertension and diabetes mellitus type 2. Evaluation of the effectiveness of hypotensive therapy and control of diabetes mellitus type II was performed on the level of glycosylated hemoglobin (HbA1c), the target blood pressure level and main parameters of lipid metabolism (total cholesterol, triglycerides, LDL cholesterol, HDL cholesterol). The comorbid pathology was interpreted as being controlled at a blood pressure of less than 140/90 mm Hg, the level of glycosylated hemoglobin HbA1c (less than 6,5%), and total cholesterol <175 mg/dl, LDL cholesterol <100 mg/dl, HDL cholesterol > 45 mg/dl, triglycerides < 150 mg/dl. The patients were divided into 2 groups. Group A - 17 patients received specific treatment for hypertension and diabetes mellitus type II. Group B - 20 patients received standard treatment for hypertension and diabetes mellitus type II and in addition, they consumed one teaspoon of mixture of milled dry ginger and garlic 2 times per day with food for a 3 months.

Results. Examination of patients after a 3-month course of treatment revealed that 51,4% of patients in group A and 70,3% ($p<0,05$) of patients in group B had successful treatment results - control of the combined pathology in all indicators (HbA1c, the target blood pressure level and total cholesterol, triglycerides, LDL cholesterol, HDL cholesterol).

Conclusion. The introduction of ginger and garlic into the diet of patients with hypertension and type 2 diabetes has been shown to have positive results, which are manifested in their mild hypoglycemic, hypolipidemic and antihypertensive effects, which enhance the effectiveness of standard therapy for hypertension and diabetes.

Considering the positive effect of this spice mixture on lipidogram indicators, its use in the diet can be recommended as well as primary prevention for patients who are at risk of developing diabetes, hypertension and cholesterol metabolism disorders such as atherosclerosis.