

## **Calcium homeostasis changes in patients with chronic colitis and arterial hypertension.**

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### **Introduction**

Chronic colitis is one of the most common chronic diseases of the digestive system. It is estimated that every second person during the life necessarily experiencing the symptoms of colitis. Most often suffer from colitis residents of developed countries (USA, Germany, Great Britain, Sweden, Denmark and others). Every year there is from 50 to 150 cases of the disease per 10,000 people.

### **Aim**

To evaluate the changes in the indices of calcium homeostasis in patients with chronic colitis and arterial hypertension.

### **Materials and methods**

The study involved 52 patients with chronic colitis and arterial hypertension. A control group presented 15 patients with isolated chronic colitis. The study included 16 men and 51 women aged from 32 to 56 years.

### **Results**

Monitoring of changes of calcium homeostasis has revealed a negative calcium balance. Thus, the total calcium level was reduced in both groups, but more significant changes have occurred in patients with chronic colitis and arterial hypertension. Thus total blood calcium levels in patients of the main group was  $2.37 \pm 0.07$  mmol/l, in the comparison group the figure was  $2.45 \pm 0.03$  mmol/l. At the same time with the total serum calcium changes we have identified violations of the ionized calcium content. Thus index of fraction ionized calcium of the blood was reduced in all patients. In patients with combined pathology it was the lowest ( $1.17 \pm 0.01$  mmol/l) and the multiplicity of norms regarding equal to 1.1 times. The distinction in the results of indicator in the groups was apocryphal, but it led to increase the calcium level ratio (49.4% in the intervention group and 48.6% in the comparison group).

### **Conclusions**

In patients with chronic colitis and hypertension observed negative dynamics of calcium homeostasis. It is therefore appropriate to include calcium in the complex treatment of drugs for the prevention or correction osteopenic conditions and osteoporosis.