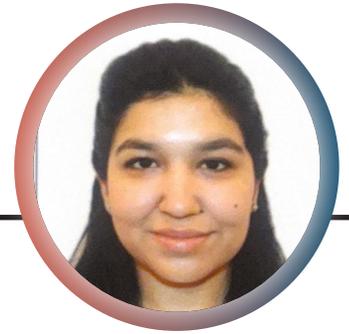


**2<sup>nd</sup> International Congress on  
Obesity and Weight Management**  
&  
**2<sup>nd</sup> International Conference on  
Food Science and Technology**  
September 19 | Virtual Event



## **Gulnoza**

Chortoq mineral water  
Uzbekistan

### **Study of “Chortoq” mineral water’s effect on microbiota and metabolic parameters in overweight and obese individuals**

#### **Abstract:**

**Background:** Obesity and overweight are major public health concerns, linked to metabolic disorders like type 2 diabetes, cardiovascular diseases, and hypertension. These conditions are often associated with gut microbiota imbalances, which affect digestion, metabolism, and immune regulation. Recent studies suggest that gut microbiota composition in obese individuals differs from that in those with normal weight, potentially influencing metabolic disorders.

**Aim:** The aim of the study was to investigate the impact of “Chortoq” water on the microbiota and metabolic parameters in women with overweight and abdominal obesity.

**Method:** The study involved 76 women with BMI >25 kg/m<sup>2</sup>, no Type 2 diabetes. Participants were split into three groups: 27 took Metformin, 25 drank water, and 24 had both. A control group of 9 healthy women was included. After 90 days, anthropometric, body composition, biochemical, and microbiota data were analyzed.

**Results:** The study measured anthropometric parameters like weight, BMI, fat, and muscle mass. The metformin, water, and metformin+ water groups had higher body weight and circumferences than the control group. Post-study, all intervention groups showed reduced weight and BMI, with the metformin+ water group gaining muscle mass. Insulin levels decreased slightly, while uric acid rose in the metformin+ water group. Triglycerides increased, and HDL cholesterol decreased in metformin groups. Fasting blood glucose unexpectedly increased. Microbiota analysis showed increased bifido bacteria in all groups, especially with water intake, and the metformin+ water group had the highest lactobacilli levels. *Klebsiella pneumoniae* decreased in all groups except the metformin+ water group.

**Conclusion:** Our study found that “Chortoq” water, consumed by women with abdominal obesity for 3 months, led to weight loss, preserved muscle mass, and improved gut microbiota, including normalized bifidobacteria levels. Water consumption was safe, without increasing salt formation or urinary tract inflammation.

## Biography

**Gulnoza** is affiliated with “Chortoq” Mineral Water in Uzbekistan. She focuses on the study and promotion of natural mineral waters, with an emphasis on their health benefits and sustainable use. Her interests include water quality analysis, mineral composition, and the role of mineral-rich water in preventive healthcare and nutrition. Through her work, she aims to contribute to advancing public health and wellness in Uzbekistan and beyond.