



## ENDOKRINOLOGIYANING DOLZARB MUAMMOLARI:

Xalqaro ilmiy-amaliy anjumani materiallari

**TO'PLAMI** 

Toshkent - 2023





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ENDOKRINOLOGIYANING DOLZARB MUAMMOLARI: Xalqaro ilmiy-amaliy anjumani tezislar to'plami /Xalqaro ilmiy-amaliy anjumani tezislar to'plami/ MChJ "TIBBIYOT NASHRIYOTI MATBAA UYI" Toshkent - 2023 – 170 bet

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Toshkent tibbiyot akademiyasida bo'lib o'tgan «Endokrinologizaning dolzarb muammolari» xalqaro ilmiy -amaliy anjumanida taqdim etilgan tezislar ushbu to'plamdan o'rin olgan.

To'plamning asosiy qismi endokrinologizaning dolzarb muammolarini aks ettiradi: ichki sekretsiza bezlari patologiyalarini davolash va oldini olishning samarali usullarini ishlab chiqih va tatbiq etishga bag'ishlangan.

Taqdim etilgan ilmiy natijalar terapiya yo'nalishining barcha mutaxassislari uchun ilmiy va amaliy ahamiyatga ega. Tezislarning mazmuni, ulardagi xatoliklar va statistik ma'lumotlarning haqqoniyligi uchun mas'uliyat mualliflar zimmasidadir.

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### CHANGES IN CALCIUM METABOLISM AND VITAMIN D STATUS AFTER SURGICAL TREATMENT OF MORBID OBESITY

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Obesity is a chronic disease of modern medicine, leading to the development of complications such as type 2 diabetes mellitus, cardiovascular diseases, dyslipidemia, obstructive sleep apnea syndrome, diseases of the musculoskeletal system, the development of malignant neoplasms, non-alcoholic fatty liver disease, reproductive disorders and other comorbid conditions, the correct treatment of which is impossible without weight loss bodies. In recent years, bariatric surgery has established itself as an effective method of treating morbid obesity (body mass index (BMI) > 40 kg/m2). It significantly reduces the incidence of obesity-related diseases and mortality of patients.

As it is known, there are various types of bariatric interventions, such as restrictive (gastronomical), aimed at reducing the volume of incoming food, malabsorptive (shunting), reducing the absorption of nutrients by shortening the intestinal tube involved in digestion, and combined. The goal of these operations is to modify the stomach and intestines to treat obesity and related diseases. The operations may make the stomach smaller and also bypass a portion of the intestine. This results in less food intake and changes how the body absorbs food for energy resulting in decreased hunger and increased fullness. These procedures improve the body's ability to achieve a healthy weight. Along with the positive effect (weight loss, normalization of lipid and carbohydrate metabolism) bariatric surgery includes both malabsorptive and complex physiological changes. Vitamin D deficiency which is especially common in obese individuals because of accumulation in adipose tissue, may increase further in the post-operative period. Pre-operative PTH elevation is possible and similar to primary hyperparathyroidism. There are many different mechanisms of impaired mineral metabolism after bariatric surgery, but malabsorption of calcium and vitamin D plays a key role in this process, as well as hormonal changes occurring after surgery can be a source of observed bone loss. Vitamin D is an essential component of calcium homeostasis in the body, which ensures the absorption of 90% of calcium in the intestine. Patients with morbid obesity have a high risk of vitamin D deficiency even before surgery, which can worsen after surgery and, in the absence of timely treatment, lead to severe disorders of calcium and phosphorus metabolism.

The metabolic effects of bariatric surgery and especially its effects on bone have been examined in recent years. Calcium malabsorption and vitamin D deficiency may contribute to bone loss by inducing secondary hyperparathyroidism that increases bone resorption. However, increased PTH levels are not always detected, suggesting that also other mechanisms are involved. In addition, future research needs to focus on the long-term adaptations of the body in response to the anatomical and physiological changes of bariatric surgery. Hopefully, a better understanding of the impact of bariatric surgery on the bone will indicate how to prevent or cure the bone loss.