

Abstract:

Introduction: Remission or more precisely, disappearing of diabetes mellitus in 70-90% of cases at patients after bariatric surgical procedures is described in literature. The aim of this work is to describe changes in metabolic parameters especially compensation of diabetes mellitus at patients after bariatric surgical procedures. Not only the development of weight, compensation of diabetes mellitus according to glycated hemoglobin but also a deficiency of some micronutrients will be observed.

Aim: The aim of this bachelor thesis is to describe changes of parameters of the diabetes mellitus type 2 at patients with the second and third grade of obesity after having a bariatric surgical procedure. Moreover, a weight development and a deficiency of some micronutrients and vitamins is also observed.

Methods: During the continuous practice in 3rd Medical Department of the General University Hospital and 1st Faculty of Medicine Charles University in Prague we processed metabolic parameters of the patients after bariatric surgical procedures. We used a quantity research by observing the development of weight, glycemia, glycated hemoglobin and vitamins to get the data for the bachelor thesis. This observation became the main information resource for the next statistical work.

Results: In all groups (gastric bandage, gastric plication, sleeve gastrectomy and gastric bypass) there was a significant loss of weight. In case of the diabetes mellitus type 2 there was also a significant improvement of its compensation. The gastric bypass seems to be the most effective not only for the weight loss but primarily for the compensation of the diabetes mellitus. On the other hand it is accompanied with the most vitamin deficiency especially the vitamins D and B₁₂.

Conclusion: It is evident from the research that bariatric surgical procedures can significantly influence reduction of weight then the remission or more precisely, complete vanishing of the diabetes mellitus. The results also point out often vitamin deficiency the most after the Roux-Y gastric bypass. Owing to often occurrence of the vitamin deficiency the research shows that substitution of vitamin D during the complex postoperative care is very desirable. Unrecognized deficiency of vitamins can lead to serious health problems in the future, for example to a severe secondary hyperparathyroidism of bones.

Key words: obesity, bariatric surgical procedures, diabetes mellitus, vitamin deficiencies