

5th World Congress on

EPIGENETICS AND CHROMOSOME

November 15-16, 2018 Istanbul, Turkey

Effect of resected gastric fundus fat on ghrelin tissue levels: A prospective study**Melis Abahuni and Ilgim Durmus**¹Yıldız Technical University, Turkey²Acibadem University, Turkey

Introduction: Obesity is currently an important health problem that is rapidly increasing worldwide. It is affected by energy imbalance and epigenetic mechanism such as diet factors, genetic background, age and other environmental factors. It becomes apparent that inter individual differences in obesity is caused by epigenetic factors. In recent years, the number of obesity-related surgeries has increased. The most common type of obesity-related surgery is Laparoscopic Sleeve Gastrectomy (LSG). The aim of this study was to compare the genetic expression of the hormone ghrelin in different parts of the stomach which were fundus and fatpad.

Materials & Methods: 19 obese patients who underwent LSG were examined in this study. The ribonucleic acid (RNA) isolation, complementary DNA (cDNA) and real-time quantitative polymerase chain reaction (RQ-PCR) techniques were applied. The ghrelin levels of fat tissue from the fundus and upper part of the fundus were statistically compared. Results: In all 19 patients, the average ghrelin expression level in the fat pad was 5.5492, and the average ghrelin expression level in the fundus was 19.1355. A statistically significant difference in the ghrelin level was found between the fundus and the fundus fat tissue.

Conclusion: Collection of fundus fat tissue is not routinely performed during LSG. However, ghrelin hormone elevation in this tissue may require collection of fundus tissue during surgery. Further studies on this subject are necessary to observe the relationship between the obesity and epigenetic factors.

Biography

Melis Abahuni has completed her Bachelor Degree, Department of Genetics and Bioengineering from İstanbul Bilgi University. Currently she is pursuing her Master in Yıldız Technical University department from bioengineering.

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